



Strategic Skills Initiative Regional Solutions Report Cover Sheet

Economic Growth Region #3: Northeast Indiana

1. Funding Request		
Requested: \$ 2,445,289	Start Date: July 2006	End Date: June 2008
2. Designated Grantee: Patricia Weddle		
Organization Name: Northeast Indiana Workforce Investment Board		Telephone Number: 260-459-1400
Address: 300 E. Main Street		Fax Number: 260-436-5973
Address: Suite 100		Email Address:
City: Fort Wayne	State: IN	Zip + 4: 46802-1908
County: Allen	FEIN: 35-1572447	
3. Contact Person		
Mr. X Ms. Dr. Other	First Name: Patricia	Last Name: Weddle
	Title: President & CEO	Telephone Number: 260-459-1400
Address: 300 East Main Street		Fax Number: 260-436-5973
Address: Suite 100		Email Address: Patty.weddle@neiwb.org
City: Fort Wayne	State: IN	Zip + 4: 46802-1908

Lead Team Members

Name:	Industry:	Title:	Signature:
Michael Ottenweller	Ottenweller Company, Inc.	President	
Keith Davis	Star Wealth Management	President	
Eric Walts	Bradner Village Health Care Center	Executive Administrator	Recused
Aaron DeWeese	Marion-Grant County Chamber of Commerce	President	Recused
John F. Wellington	Indiana-Purdue University Fort Wayne	Dean of School of Business & Management Sciences	Recused
David Koenig	Region IIIA	Executive Director	
Jonathon J. Myers	Indiana Economic Development Council	Regional Director	
Kirk C. Kemmish	Northeast Indiana Corporate Council	President	Recused
Michael Ripley	Adams County Economic Development Corporation	Executive Director	
Tom Braun	Central Labor Council	Labor Representative	

Empowering Innovation in Northeast Indiana

The Northeast Indiana Strategic Skills Initiative Solutions Report

March 3, 2006



**Patricia P. Weddle, Core Agent
300 East Main Street
Fort Wayne, IN 46802
www.neiwib.org**

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Economic Growth Region 3 Strategic Skills Initiative

LEAD TEAM

Tom Braun
Northeast Indiana Central Labor Council

Keith Davis
Star Wealth Management

Aaron DeWeese
Marion-Grant County Chamber of Commerce

Kirk Kemmish
Northeast Indiana Corporate Council

Dave Koenig
Region III-A

Jon Myers
Indiana Economic Development Corporation

Michael Ottenweller
Ottenweller Company, Inc.

Mike Ripley
Adams County Economic Development Corporation

Eric Walts
Bradner Village Health Care Center

John Wellington
Indiana University-Purdue University Fort Wayne

CONSORTIUM

Deborah Conklin
Indiana University-Purdue University Fort Wayne

Garry Jones
Wells County Economic Development Corporation

Mike Landram
Greater Fort Wayne Chamber of Commerce

Jeff Hendrix
Whitko Community School Corporation

Rob Pearson
Wabash County REMC

Lincoln Schrock
Indiana Northeast Development

Dennis Silkworth
Indiana Department of Revenue

Deb Stam
Parkview Health

Lisa Stefanko
Dean Foods

STAFF

Patty Weddle
EGR-3 SSI Core Agent
President/CEO, Northeast Indiana Workforce Investment Board

Kathleen Randolph
Vice President-Operations

Beth Suman
Controller/Vice President-Finance

Tom Fellrath
Project Manager

Karen Green
Operations Manager

John Stafford
IPFW Community Research Institute

Valerie Richardson
IPFW Community Research Institute

Executive Summary

Indiana's Economic Growth Region 3 embraced the call for the third and final element of the Strategic Skills Initiative to unleash innovation and creativity in our region as we developed workforce-driven solutions to the shortages and root causes identified over the past six months. In that spirit, Economic Growth Region 3 implemented a methodology for developing SSI solutions that is unique among the different regions in the State of Indiana.

Our organizing philosophy was not to drive the planning of our solutions. Instead, we chose to empower organizations to take what we learned and develop their own creative solutions.

Stephen Covey said, "An empowered organization is one in which individuals have the knowledge, skill, desire, and opportunity to personally succeed in a way that leads to collective organizational success."¹ This statement gives context to our philosophy. We believe that empowerment of our community partners is the key to innovation, which will lead to our region's long-term success. Our methodology reflects that belief and offers solutions providers every opportunity to succeed.

The organizations offering solutions in this report took EGR-3's SSI research from the Skills Shortage phase and Root Cause phase and leveraged their capacities and communities of interest to build unique solutions. Empowered to create and innovate, the solution developers are dedicated to seeing their projects succeed through their ingenious, self-identified means of sustainability. The developers of these solutions "own" the solutions presented in this report.

Northeast Indiana's creative potential has been leveraged to build a portfolio of eight outstanding solutions concepts. These solutions target all of our occupational shortage areas and most of our identified root causes through innovative means of developing skills in our population. Taken together, they reflect creative efforts to systemically address our cultural, cross-cutting root causes (the silo effect, a lack employer-employee loyalty and the challenge in marketing northeast Indiana) to fix the SSI-identified skill shortages in advanced manufacturing, health care delivery and information technology.

This report overviews the process we used to uncover our solutions. In addition, it details the individual solutions as well as the partnerships forged in their development.

Our research for this project is complete. It is time to empower our solutions providers not just to create but to act. We look forward to implementing these innovative solutions and fixing the shortages identified in the EGR-3 Strategic Skills Initiative in a meaningful way, at the root cause level, over the next two years and beyond.

"Empowering Innovation in Northeast Indiana" is the third of three Strategic Skills Initiative reports submitted to Indiana Workforce Development. This report will provide a brief overview of the findings of the first two phases and will detail solutions EGR-3 proposes to address the skill and occupational shortages uncovered in phase in and two.

Key industries and occupational areas in EGR-3 that contain "high-growth" and "high-wage" companies with existing and projected shortages are:

Healthcare delivery (registered nursing, specifically)

¹ "Quotes by Stephen Covey," accessed at <http://www.zaadz.com/quotes/view/34469> on February 10, 2006

Advanced manufacturing (industrial engineers and CNC-MIMMs – a hybrid occupation merging the various machine operation and industrial maintenance functions)

Transportation/distribution/logistics

In addition, the cross-cultural concept of effective **information technology implementation** in the workplace was explored (computer systems analysts)

The EGR-3 SSI's targeted occupations are:

- **Registered Nurses** (Standard Occupation Code: 29-1111)
- **CNC-MIMMs** (A multi-skilled hybrid of five occupations: Industrial Machinery Mechanics, SOC 49-9041; Maintenance and Repair Workers, General, SOC 49-9042; Maintenance Workers, Machinery, 49-9043; Computer controlled Machine Tool Operators & Tenders, Metal & Plastic, SOC 51-4011 and Machinists, SOC 51-4041)
- **Industrial Engineers** (SOC 17-2112)
- **Computer Systems Analysts** (SOC 15-1051)

SSI primary research revealed that our industry partners want all workers to possess the following skills:

Scholastic skills	Technology skills
<ul style="list-style-type: none"> • Math • English, including writing skills 	<ul style="list-style-type: none"> • Computer and technology, including the ability to use basic software like Microsoft Office programs
Thinking skills	People skills
<ul style="list-style-type: none"> • Systems thinking • Critical thinking • Problem-solving • Trouble-shooting 	<ul style="list-style-type: none"> • Teamwork • Communications • Customer service • Listening skills

The following skills are needed in the SSI targeted occupations:

CNC-MIMM	Industrial Engineer	Computer Systems Analyst	Registered Nurse
<ul style="list-style-type: none"> • Practical experience in a machining environment • Ability to read a CNC program • Machine programming • Machine setup • Machining skills • Blueprint reading 	<ul style="list-style-type: none"> • Creativity and imagination • Leadership skills • Spatial thinking • Computer Aided Design (CAD) software experience • Time management 	<ul style="list-style-type: none"> • Self-reliance and self-motivation • Personal computer hardware knowledge • Any possible computer hardware or software certifications • Detailed computer software application knowledge, especially with Microsoft Windows, Word, Excel and Access • Networking knowledge 	<ul style="list-style-type: none"> • Biological sciences • Basic clinical skills from practical training • Flexibility • Accountability • Professionalism • Compassion • Organizational skills • Time management

Further investigation revealed both “cross-cutting” and occupation-specific root causes of the shortages. Both the cross-cutting and the occupation-specific root causes must be considered in tandem to reduce the shortages. Cross-cutting root causes include:

- The **silo effect**, or a lack of communication and common goals between departments in an organization. Our region's silo effect is especially strong with different organizations within and between communities.
- A **lack of employer-employee loyalty** exists where employers are perceived as not investing sufficiently in employees well-being; employees, in turn, have little emotional investment or loyalty to their employer.

- **Regional marketing shortfalls**, as related to both internal and external audiences. EGR-3's residents do not appreciate the positive quality of life offerings of the region, and non-residents are extremely reluctant to move here.

Target occupation-specific root causes, listed in order of priority:

CNC-MIMM

- High school graduates have **insufficient academic preparation** for this occupation
- Potential workers have **unrealistic expectations** of what it's like to work in this industry
- School **guidance counselors have little understanding** of the opportunities in this occupation
- Not enough **practical experience** for students with area employers
- **Capacity of training institutions** is inadequate to prepare workers in this occupation
- Workers at lower skill levels find it **difficult to upgrade their skills** to qualify for more senior roles
- Workers feel there is **no opportunity to advance** from their present position

Computer Systems Analyst

- IT professionals leave this occupation for **better pay/benefits elsewhere**
- Workers at lower skill levels find it **difficult to upgrade their skills** to qualify for more senior roles
- Workers feel there is **no opportunity to advance** from their present position
- Not enough **practical experience** for students with area employers
- High school graduates have **insufficient academic preparation** for this occupation
- Potential workers have **unrealistic expectations** of what it's like to work in this industry
- **Difficulty in attracting** analysts &/or their spouses to this area
- **Instructors are not sufficiently paid** to retain them

Industrial Engineer

- **Difficulty in attracting engineers** &/or their spouses to this area
- High school graduates have **insufficient academic preparation** for this occupation
- School guidance **counselors have little understanding** of the opportunities in this occupation
- Not enough **practical experience** for students with area employers
- Potential workers have **unrealistic expectations** of what it's like to work in this industry

Registered Nurse

- **Capacity of training institutions** is inadequate to prepare workers for this occupation
- **Instructors are not sufficiently paid** to retain them
- **Stress &/or burnout** are driving registered nurses from this occupation in some areas
- Not enough **practical experience** for students with area employers
- Potential workers have **unrealistic expectations** of what it's like to work in this industry
- **Difficulty in attracting registered nurses** &/or their spouses to this area
- School **guidance counselors have little understanding** of the opportunities in this occupation
- Registered nurses leave this occupation for **better pay/benefits elsewhere**
- The **lack of teamwork** among health care staff results in low morale among new workers

Root causes present in the emerging workforce are:

- Fear of working in manufacturing industries
- Disinterest in pursuing careers in transportation, distribution and logistics

Methodology for Developing Solutions

EGR-3 implemented a three-part approach through the use of IWD web-based workshops to develop viable solutions:

- Consideration of potential solutions by **SSI leadership**
- A series of industry-specific “**solutions creation sessions**,” combining a SSI process overview with solicited solutions-oriented dialogue in an environment open to both interested community members and potential solution providers
- An **open application process**, where potential solution providers offered their proposed solutions based upon the first two EGR-3 SSI reports.

This approach allowed for the Lead Team to have a major role in the direction of the SSI solutions phase. It also allowed significant space for public participation in a manner that combined industry demand inputs with potential solutions providers. Lastly, the open application process allowed for any entity to take the SSI research and develop and propose innovative solutions.

The EGR-3 methodology was determined in December 2005, before the Solutions Section of the SSI Guidebook 3.0 was released or any SSI workshops were held. EGR-3 used the first workshop as a vehicle to test this methodology against the Guidebook with Workforce Associates.

Additional workshops were held where our progress was further assessed and technical assistance was again provided to review the validity and relative strength of the proposed solutions. We were advised that our methodology was both sound and acceptable within the Guidebook guidelines and met the three core criteria for solutions evaluation:

- Quality of proposed solutions in terms of line of sight between skills shortages, root causes and solutions
- Likelihood that solutions will be successfully implemented
- Alignment between the solution and “allowable expenditures” delineated in the IWD matrix

The solutions were developed in collaboration with the solutions providers in response to the first two phases of the EGR-3 SSI process. We believe that this empowerment of solutions providers to participate in the design of solutions fostered greater imagination and also forced them to overcome obstacles in determining sources of match funding in a way that makes EGR-3's proposed solutions unique.

Description of Solutions

EGR-3 proposes eight solutions for SSI funding. Solutions presented are listed in rank order of importance.

Center for Excellence in Advanced Manufacturing

This solution creates a **regional specialty training center and curriculum** to train EGR-3's manufacturing workforce. Students would learn the combination of skills needed to perform as a **CNC-MIMM** in EGR-3. Partnerships would be formed between manufacturers, education providers, economic developers and CNC equipment manufacturers to ensure that this program would **continually offer state-of-the-art equipment and process instruction** to this emerging occupation group.

LINE OF SIGHT

Shortage:

- Adequately cross-trained CNC-MIMMs meeting the needs of the modern manufacturing environment

Root Causes:

- High school graduates have insufficient academic preparation for the occupation
- Potential workers have unrealistic expectations of what it's like to work in this industry
- Not enough practical experience with area employers
- Capacity of training institutions is inadequate to prepare workers in this occupation
- Workers at lower skill levels find it difficult to upgrade their skills to qualify for more senior roles
- Fear of manufacturing in emerging workforce

Solution:

- Create and provide certification-driven curriculum to meet demand for five-occupation hybrid skill needs, aligning coursework with an optional degree track
- Realign Ivy Tech Community College – Northeast's Manufacturing Technology division to keep pace with market demand through:
 - Customization of program delivery
 - Regular dialogue with industry partners to ensure relevance of curriculum for the new CNC-MIMM occupation
- Offer content to students who pass initial workforce literacy threshold
- Integrate mentorship and practical, applied learning opportunities into curriculum including apprenticeships

SOLUTION SPONSORS

Ivy Tech, JobWorks, Whitley County Economic Development Corp., NE IN Toolmaker Resource Org.

REQUESTED FUNDING

\$545,200; 50% match secured for year two

RECOMMENDED SSI FUNDING CATEGORIES

WIA Allowable, TAG, Block Grant

SUPPLY GENERATION

Year	Ivy Tech CDC/Technical Certificate	American Welding Society (AWS) certification	Ivy Tech Community College Associate of Science Degrees	Manufacturing Skill Standards Council (MSSC) Certification for High-Performance Manufacturing	National Institute for Metalworking Skills (NIMS) certification	U.S. Department of Labor Bureau of Apprenticeship and Training Journeyman certification
2006	10	12	-	-	-	-
2007	20	20	2	5	2	-
2008	24	45	10	20	10	12
2008	24	50	20	40	24	24

Advanced Business Technology Solutions

This solution funds the creation and delivery of **cutting edge technology computer systems application and process training**. This curriculum will offer **applied learning experiences** to every student through case studies that both teach students how to integrate advanced technology into business processes but also provide productivity improvements for the case study clients. This solution ensures sustainability by funding research (conducted in part by students) to **develop the next phase of advanced technology application coursework**.

LINE OF SIGHT

Shortage:

- Computer systems analysts with working knowledge of latest information technology

Root Causes:

- Workers at lower skill levels find it difficult to upgrade their skills to qualify for more senior roles
- Not enough practical experience with area employers
- High school graduates have insufficient academic preparation for the occupation
- Potential workers have unrealistic expectations of what it's like to work in this industry

Solution:

- Create and deliver a selective, interdisciplinary study integrating the topics of Operations Management, Management Information Systems, Radio Frequency Identification and Marketing
- Integrate classroom/lab learning with real-world case studies that increase student learning and improve profit and productivity for case study clients
- With student learners, conduct ongoing research and development into next-generation business hardware and software applications for future program development

SOLUTION SPONSORS

BEST Institute, RP Global Technologies Solution LLC

REQUESTED FUNDING

\$183,100; 50% match secured for year two

RECOMMENDED SSI FUNDING CATEGORIES

WIA Mandatory and Allowable, TAG, Block Grant

SUPPLY GENERATION POTENTIAL

Year	Undergraduate and MBA population	Community population	Independent Study students
2006-2007	40	-	6
2007-2008	40	20	6
2008-2009	40	20	6
2009-2010	40	20	6

Northeast Indiana TechNet

This solution creates an **online knowledge portal** that offers relevant **WIA and WorkOne training and service listings** for SSI-targeted occupations within the context of web-based **networking** and **regional information** distribution method, which will promote repeated use of the portal and **reinforce the core values** of lifelong learning and skill advancement.

LINE OF SIGHT

Shortages:

- | | |
|---|--|
| <ul style="list-style-type: none"> Computer systems analyst Industrial Engineer | <ul style="list-style-type: none"> CNC-MIMM Registered nurse |
|---|--|

Root Causes:

- Workers feel there is no opportunity to advance from their present position
- Workers at lower skill levels find it difficult to upgrade their skills to qualify for more senior roles
- Potential workers have unrealistic expectations of what it's like to work in this industry
- School guidance counselors have little understanding of the opportunities in this occupation
- Difficulty in attracting engineers and their spouses to this area
- (RNs) Stress or burnout are driving registered nurses from this occupation in my area

Solution:

- Create a cross-disciplinary, regional Internet portal help existing and potential workers in SSI's target occupations learn and grow in their occupations through formal and informal means.
- The portal will offer listings of WIA-eligible training providers and links to their web sites or other contact information.
- The portal will be designed specifically to address the needs of a dispersed, remote audience and support their individual professional development issues and needs. Content will be developed to increase training awareness and availability, offer relevant communications and reset expectations for EGR-3's professionals. The portal will also provide information for members of the emerging workforce who are considering careers in the target professions within the region.
- The solution also proposes integration of the available WorkOne/Monster IT positions with this portal, allowing regional candidates readier access to EGR-3's available positions. Online access to other WorkOne functions likely could be integrated as well.
- Potential workers can also acclimate themselves to what employers require in EGR-3 through community forum dialogue and directed content.
- The web portal's capacity to provide a communication forum has the potential to assist with reducing workplace stress and burnout through collective problem-solving.

SOLUTION SPONSORS

Prairie Quest Consulting, TechPoint, Advanced Micro Electronics, Hanapin Marketing

REQUESTED FUNDING

RECOMMENDED SSI FUNDING CATEGORIES

\$257,200; 50% match secured in year two

WIA Mandatory and Allowable

SUPPLY GENERATION POTENTIAL

This solution is designed to encourage professional development and continued viability of the SSI-targeted occupations in EGR-3. Supply generation is an ancillary goal through marketing of occupations to the emerging workforce.

Nursing Clinical Placement Clearinghouse

This solution will **consolidate the nurse clinical training component** of EGR-3's nursing programs into a single clearinghouse. The Clearinghouse will **coordinate the scheduling** of nursing students with area clinical training sites, **maximize the training capacity** of existing training sites and will **develop new training sites**. It also will develop an **expanded nurse clinical instructor program** to ensure that new clinical learning environments are appropriately staffed.

LINE OF SIGHT

Shortage:

- Registered nurses

Root Causes:

- Capacity of training institutions is inadequate to prepare workers for this occupation
- Not enough practical experience for students with area employers
- Potential workers have unrealistic expectations of what it's like to work in this industry

Solution:

- Creation of a full-time, third-party position to objectively seek out and subsequently schedule all nursing school clinical rotations in EGR-3, mitigating one of the major bottlenecks in registered nursing production in Northeast Indiana by:
 - Aligning current clinicals to achieve maximum utilization (including all shifts and weekends)
 - Developing new sources of clinical learning experiences
 - Addressing non-Indiana residents and students taking clinical rotation space away from Indiana residents and students
- Development and implementation of a nursing clinical instructor curriculum to facilitate the expansion of clinical opportunities in EGR-3

SOLUTION SPONSORS

Ivy Tech, Indiana University-Purdue University Fort Wayne, University of Saint Francis

REQUESTED FUNDING

RECOMMENDED SSI FUNDING CATEGORIES

\$104,045; 50% match secured for year two

WIA Allowable, TAG

SUPPLY GENERATION POTENTIAL

Year	Hospital-based clinical rotations	Nursing home/long-term care clinical rotations	Other clinical rotations
2006	-	-	-
2007	30	-	-
2008	30	TBD	TBD
2009	30	TBD	TBD

Logistics Training Development

This solution will establish **Logistics Management program delivered by Ivy Tech in EGR-3**. It will also develop an **education progression** which starts a survey course, issues technical certifications and concludes with an Associate degree for students who complete the program. **Training would be customized** to meet the technical application specifications of regional employers. Business organizations will **market this brand new educational option** throughout the region.

LINE OF SIGHT				
<u>Shortage:</u> <ul style="list-style-type: none">Computer systems analysts, Industrial engineers in Transportation, Distribution and Logistics industry				
<u>Root Causes:</u> <ul style="list-style-type: none">Not enough practical experience for workforce in this fieldPotential employees have unrealistic expectations of industryWorkers at lower skill levels feel there is no opportunity to advanceHigh School graduates have insufficient academic preparationEmerging workforce disinclination toward transportation, distribution and logistics				
<u>Solution:</u> <ul style="list-style-type: none">Introduce Ivy Tech Associate of Science in Logistics Management and American Society for Transportation and Logistics (ASTL) certification curriculum into EGR-3 along the I-69 corridor from Steuben/Lagrange to Grant/Wabash CountiesConduct employer outreach to build awareness, custom-design key elements of curriculum and develop practical learning extensions of curriculumConduct social marketing campaign to build awareness of technological career opportunities in transportation, distribution and logistics in Northeast Indiana				
SOLUTION SPONSORS				
Marion-Grant County Chamber, Ivy Tech, JobWorks, Greater Fort Wayne Chamber				
REQUESTED FUNDING		RECOMMENDED SSI FUNDING CATEGORIES		
\$220,359; 50% match secured for year two		WIA Allowable, TAG, Block Grant		
SUPPLY GENERATION POTENTIAL				
Year	Non-degreed Modern Logistics Certificate	Career Development Certificate in Logistics	American Society of Transportation and Logistics Certificate and Technical Certificate in Logistics	Associates Degree (A.S.) in Logistics Management
2006	15	-	-	-
2007	30	15	-	-
2008	50	25	10	5
2009	80	35	20	15

Contemporary Manufacturing/Technology Boot Camps

This solution **bridges the divide between industry and their supporting service providers and educators in a series of annual, two-week summer “boot camps.”** These experiences, modeled after a successful entrepreneurship boot camp in 2005, will combine expert overviews and insight with facility tours and hands-on learning experiences.

LINE OF SIGHT

Shortage:

- Industrial engineers and computer systems analysts in contemporary manufacturing, information technology and transportation, distribution and logistics industries

Root Causes:

- High school graduates have insufficient academic preparation for this career
- School guidance counselors have little understanding of opportunities in this profession
- Students do not have enough practical experience in this area prior to first employment
- Emerging workforce fear of manufacturing and disinclination toward transportation, distribution and logistics

Solution:

- 2006: A two-week intensive summer learning experience for WIA service providers, high school teachers, counselors, and their students in the people, places, processes, and practices of contemporary manufacturing in northeast Indiana, including seminars with industry leaders, site visits and hands-on learning experiences
- 2007: The same, but focusing on modern technology business services and applications in northeast Indiana
- 2008: The same, but focusing on contemporary logistics in northeast Indiana

SOLUTION SPONSORS

Indiana University – Purdue University School of Business and Management Sciences with Do It Best Corporation, Ottenweller Manufacturing, REA Manufacturing, 80/20 Inc., Northeast Indiana Innovation Center, Anthis Career Center

REQUESTED FUNDING

\$45,750; 50% match secured for year two

RECOMMENDED SSI FUNDING CATEGORIES

WIA Allowable, Block Grant

SUPPLY GENERATION POTENTIAL

	<i>Projections combine education professionals (teachers and guidance counselors), students and Workforce Investment Act eligible training providers and service providers</i>		
Year	Contemporary Manufacturing Boot Camp Graduates	Information Technology Boot Camp Graduates	Logistics Boot Camp Graduates
2006	25	-	-
2007	-	25	-
2008	-	-	25

IPFW Comprehensive Nursing Solutions

This solution leverages an Area Health Education Center (AHEC) grant to help **develop a meaningful nursing feeder system with underprivileged populations** and their high schools. It also will convene a **colloquium on workplace stresses** facing nurses and other health occupations. Lastly, it will **apply Purdue's distance learning potential to advanced nursing certification courses**, delivering this course content across EGR-3.

LINE OF SIGHT

Shortage:

- Registered nurses

Root Causes:

- Inadequate academic preparation at the high school level
- Stress &/or burnout are driving registered nurses from this occupation
- Potential workers have unrealistic expectations of what it's like to work in this industry
- School guidance counselors have little understanding of the opportunities in this occupation
- The lack of teamwork among health care staff results in new workers having low morale
- Shortage of advanced nursing certifications in the nursing population

Solution:

- Conduct wide secondary education outreach including assisting in the creation of nursing preparatory programs from best practice models like Health Occupations Program and Career Majors Academy, incorporating dual credit programming wherever possible
- Create a colloquium on workplace pressures and stresses in nursing and the health occupations
- Expansion of current Critical Care Nursing class, implementation of new advanced nursing certification curriculum and implementation of nursing continuing education credit-driven programming – all via distance learning technologies

SOLUTION SPONSORS

Indiana University – Purdue University Fort Wayne School of Health Sciences with Purdue University Extension System; IPFW Continuing Studies; IPFW Division of Organization, Leadership & Supervision; Regional K-12 school systems

REQUESTED FUNDING

\$232,706; 50% match secured for year two

RECOMMENDED SSI FUNDING CATEGORIES

WIA Mandatory, Allowable, TAG, Block Grant

SUPPLY GENERATION POTENTIAL

Year	New Nursing Students	Advanced Certifications
2006	50	20
2007	50	20
2008	60	20
2009	75	20

Registered Nursing Career Ladder & Pipeline Development

This solution, responding to a **pressing occupational shortfall in Grant County**, will fund a **registered nursing pipeline development program** through the enrollment of 50 new nursing candidates every year at EGR-3 education institutions.

LINE OF SIGHT		
<p><u>Shortage:</u></p> <ul style="list-style-type: none"> Registered nurses <p><u>Root Causes:</u></p> <ul style="list-style-type: none"> Inadequate academic preparation at the high school level Potential workers have unrealistic expectations of what it's like to work in this industry School guidance counselors have little understanding of the opportunities in this occupation Lack of employer-employee loyalty <p><u>Solution:</u></p> <ul style="list-style-type: none"> Enroll and graduate 25 new Registered Nurses, using employer tuition reimbursement incentives Create a Registered Nursing career ladder pipeline by enrolling and graduating 25 new Licensed Practical Nurses, using employer tuition reimbursement incentives Build interest in healthcare careers option for Grant County residents through health career fairs, a health-occupations speaker's bureau and outreach to marketing to non-traditional nursing populations, especially WIA-eligible youth 		
SOLUTION SPONSORS		
Grant County Economic Growth Council, Bradner Village H.C.C., Marion General Hospital, TLC Management, Ivy Tech Community College, Indiana Wesleyan University, Tucker Career & Counseling Center		
REQUESTED FUNDING		RECOMMENDED SSI FUNDING CATEGORIES
\$280,500; 50% match secured for year two		WIA Mandatory, Allowable, TAG, Block Grant
SUPPLY GENERATION POTENTIAL		
Year	New RNs	New LPN's
2006	25	25
2007	25	25
2008	25	25
2009	25	25

EGR-3 Solutions Portfolio – Line of Sight Matrix

	1. Center for Excellence in Advanced Manufacturing	2. Advanced Business Technology Solutions	3. Indiana TechNet	4. Nursing Clinical Placement Clearinghouse	5. Logistics Training Development	6. Manufacturing/Technology Boot Camps	7. IPFW Comprehensive Nursing Solutions	8. Registered Nursing Career Ladder & Pipeline Devp.
SKILL SHORTAGES TO BE ADDRESSED								
GLOBAL SKILL NEEDS								
Scholastic Skills	✓	✓			✓			✓
Technological Skills	✓	✓	✓		✓			✓
Thinking Skills	✓	✓	✓	✓	✓			✓
People Skills	✓	✓		✓	✓			✓
OCCUPATION-SPECIFIC SKILL NEEDS								
CNC-MIMM Skills	✓					✓		
Registered Nursing Skills				✓			✓	✓
Computer Systems Analyst Skills		✓	✓		✓			
Industrial/Design Engineer Skills			✓		✓	✓		
ROOT CAUSES OF SHORTAGES								
SILO EFFECT								
Insufficient academic preparation	✓	✓			✓			✓
Unrealistic expectations of work	✓	✓	✓	✓	✓	✓	✓	✓
Guidance counselor awareness			✓			✓	✓	✓
Practical/applied learning	✓	✓		✓	✓			
EMPLOYER-EMPLOYEE LOYALTY								
Difficult to upgrade skills	✓	✓	✓		✓		✓	✓
No opportunity to advance							✓	✓
THE MARKETING CHALLENGE								
Difficulty attracting workers		✓			✓			
OCCUPATION-SPECIFIC ROOT CAUSES								
Inadequate training capacity	✓	✓	✓	✓			✓	
Leave for better pay/benefits								
Instructors not paid sufficiently								
Stress/burnout drives workers away							✓	
Lack of teamwork							✓	
EMERGING WORKFORCE ROOT CAUSES								
Fear of manufacturing	✓	✓	✓			✓		
Disinclination toward TD&L					✓	✓		

Administrative Role

Under this solutions portfolio, EGR-3's Regional Operator, under the oversight of the Regional Workforce Board, will conduct administrative duties related to SSI. This includes providing technical assistance to the solutions providers to ensure they are meeting their sustainability measures for success, overseeing the implementation of the solutions and reporting to Indiana Workforce Development, on a quarterly basis, the following criteria for each solution:

- How efficiently funds were used
- How closely the proposed timelines were followed
- How much the shortages were actually reduced
- How prevalent the shortages still are
- How the sectors/industries and/or clusters of industries have responded to the implementation of solutions

To accelerate the enrollment and engagement in each of the solutions, **EGR-3 proposes to administer a scholarship pool of \$200,000 to businesses (\$75,000 in year one, \$125,000 in year two) to be offered on a cost reimbursement basis and matched at 50 percent by employers, for their employees (capped at \$2,000 per employee) in the following SSI solutions** (where this concept is applicable):

- Center for Excellence in Advanced Manufacturing
- Advanced Business Technology Solutions
- Nursing Clinical Instructor Training (part of Nursing Clinical Placement Clearinghouse)
- Advanced Nursing Certifications (part of IPFW Comprehensive Nursing Solutions)

This concept addresses a cross-cutting root cause, that of a lack of employer-employee loyalty, by encouraging employers to invest in their employees' continuing skill development. In addition, this strict oversight of scholarships allows us to accurately gauge the last monitoring item mentioned above.

EGR-3 Solutions Portfolio – Master Budget

ORDER OF IMPORTANCE	PROPOSED SSI SOLUTION	PROJECTED BUDGET
1	Center for Excellence in Advanced Manufacturing	\$545,200
2	Advanced Business Technology Solutions	\$183,100
3	Northeast Indiana TechNet	\$257,200
4	Nursing Clinical Placement Clearinghouse	\$104,045
5	Custom Logistics Engineering & Applications	\$220,359
6	Contemporary Manufacturing & Technology Boot Camps	\$45,750
7	IPFW Comprehensive Nursing Solutions	\$232,706

8	Registered Nursing Training and Career Ladder Development	\$282,500
	EGR-3 administration and oversight of SSI implementation	\$374,429
	EGR-3 SSI scholarship fund	\$200,000
TOTAL FUNDING REQUEST		\$2,445,289

Policy Recommendations

In addition to the proposed solutions portfolio, SSI leadership determined a number of policy directions that may be manifested at the federal, state or local level.

- **A statewide effort to address The Ambition Gap**
- **Connect the emerging workforce with the world they will face after high school**
- **Challenge business and education to align their efforts for mutual gain**
- **Foster a culture of continuous learning**
- **Market northeast Indiana - both inside and outside our borders**
- **Encourage long-term visioning in community, economic and workforce development**

Conclusion

EGR-3's Portfolio of Solutions represents a combination of, innovative, meaningful, achievable and pragmatic concepts that will address the many root causes in EGR-3 and, in the process, fix the shortages identified in Economic Growth Region 3's Strategic Skills Initiative planning.

EGR-3 Lead Team and staff appreciate the depth of active participation in the planning and implementation of the solutions presented herein by our many industry partners. This groundbreaking effort is evidence of true collaborative problem-solving and engagement that will assuredly lead to an increase of skills and reduction in occupational shortages in northeast Indiana and improve the economic vitality of the region.

We also appreciate the EGR-3 Regional Workforce Board endorsement of our SSI process and the solutions generated through the process.

We thank the Indiana Workforce Development for the opportunity to engage in this exciting process and present these solutions for funding consideration.

Solutions Phase

We believe that our methodology of developing SSI solutions is unique among the Economic Growth Regions in the State of Indiana. Building on the public input gathering during the shortage phase interviews and the focus groups of the root cause phase, we chose to empower the public with the creation of solutions. The organizations that we present in this report as potential providers of SSI solutions built their own solutions. The developers of these solutions “own” the solutions presented in this report. They developed the solutions and are dedicated to seeing them succeed. They have a stake in the outcomes – a positive outcome of empowering the community to innovate.

With this empowerment to create also came the responsibility to fund and sustain. SSI leadership, recognizing that solution providers would be required to sustain the solutions after seed funding through SSI ceased, left questions related to match funding in year two and sustainability to the solution providers. Thus, our solutions should be well-considered for the life-cycle of State involvement and years beyond State funding because our solution providers have had to deal with this core issue at the outset – and have been challenged to develop sustainable funding streams as a result.

We also believe that spreading the opportunity to develop solutions to any interested party was a manifestation of our internal credo, “The best solution can come from the least likely source.” This statement largely proved true as SSI staff and leadership recognized that the level of innovation presented through our methodology was much more diverse (in both potential provider and solution design) than they could have come up on their own. We believe that our open process allows us to satisfy the open bidding requirements of our procurement policy, allowing for meaningful alliances to form between solution provider and SSI staff before this report is submitted to the State.

The SSI solutions phase uncovered an impressive level of innovation and creativity within the region. The variety of solutions presented is as wide as the nature of the organizations presenting the solutions. While each solution represents a unique effort, a few themes emerged from their work:

- Solutions like the proposed Center for Excellence in Advanced Manufacturing, the Logistics Management curriculum program; the cutting-edge Advanced Business Technology Solutions program, and IPFW’s advanced nursing certification distance learning effort intend to **develop training programming to meet the changing needs of our transitioning economy.**
- Others, like the Northeast Indiana TechNet and the regional Nursing Clinical Placement Clearinghouse, suggest the **creation of new structures to fix systemic problems.**
- The Contemporary Manufacturing and Technology Boot Camps and IPFW’s high school outreach to bolster health careers curriculum look to **address the silo effect by bringing K-12 education and the “real world” together** in shared learning environments.
- Lastly, the Grant County nursing career ladder program intends to **fix an immediate occupational shortfall** in a critical area.

This report addresses these solutions in more detail and documents the processes used to arrive at them. Specifically, the report will describe:

Methodologies used to identify potential solutions for the skills shortages and human resource and training needs of the targeted occupations within EGR-3;

Processes used to engage industry and community partners in developing solutions;

Solutions stakeholders proposed to address the root causes of skills shortages in the region's targeted occupations; and

Action Plan & Timeline—each solution clearly explaining what we plan to do and when, in partnership with business and community stakeholders, to realize these solutions.

Implementation of methodology

The EGR-3 solutions methodology incorporates a three-part approach to solutions development:

- Consideration of root causes by SSI leadership conducted at a Lead Team meeting and via reports located on NIWIB's website
- A series of three industry-specific "solutions creation sessions," where SSI staff presented an EGR-3 SSI process overview and solicited solutions-oriented dialogue in an environment open to both interested community members and potential solution providers
- An open application process, where any potential solution provider could offer their proposed solution based upon the first two EGR-3 SSI reports

This combined approach allowed for the Lead Team to have a major role in the direction of the SSI solutions phase. It also allowed significant space for public empowerment through direct participation in a community-oriented public meeting that combined solutions demand inputs with potential solutions providers, offering a social space for providers to hear directly from the voice of the end customer – and for providers to consider areas for partnership with each other. Lastly, the open application process allowed for any entity (as long as they were incorporated in the State of Indiana) to take our concepts and offer innovative solutions.

Four Lead Team members submitted solutions concepts in the course of this process. They were recused from further deliberation over solutions due to conflicts of interest.

The methodology had the endorsement of the EGR-3 al Workforce Board, who voted on February 3, 2006 to authorize and endorse the SSI proposed solutions plan.

Request for Letters of Intent

SSI staff drafted a Request for Letters of Intent (informally referred to as a Request for Information, or RFI). As the solutions concept process was open to all entities incorporated in the State of Indiana, the RFI was transmitted electronically to the following parties after the Lead Team meeting on January 19:

- All parties on the current NIWIB bidders list (39 addresses)
- All EGR-3 Chambers of Commerce where emails were available (32 addresses)
- All EGR-3 Local Elected Officials (defined as Mayors or County Commissioners, 47 addresses)
- All EGR-3 Economic Development Organizations (15 addresses)
- All participants in the SSI Skills Shortage and Root Cause phases where emails were provided (96 addresses)
- All EGR-3 institutions of higher education leadership

- All participants in the NE Indiana SSI higher education orientation session of November 22, 2005 (6 addresses)
- Local representatives for:
 - Society of Automotive Engineers
 - Society of Manufacturing Engineers
 - Indiana Machine Tool Association
 - Society of Plastics Engineers (attempted to locate local contact without success per www.4spe.org)
- Junior Achievement
- Northeast Indiana Innovation Center
- Fort Wayne Education Association
- Fort Wayne Engineers Club
- 3 active members of TechPoint that work in EGR-3
- Steuben County Industrial Guild
- All high school principals in EGR-3 (43 addresses)
- All public school corporation superintendents in EGR-3 (32 addresses)
- Fort Wayne Business Journal
- Business People magazine
- Purdue University – West Lafayette TAP/MEP program
- Northeast Indiana Human Resources Association
- Learning Generation
- Smart Guys advertising agency
- Northeast Indiana Central Labor Council
- EGR-3 Lead Team – as a courtesy
- EGR-3 Consortium – as a courtesy
- Current NIWIB board members – as a courtesy

Solution creation sessions

Solutions creation sessions – public meetings fostering shared understanding of the premises of the EGR-3 SSI process and enabling interaction between solution supply and demand representatives – were held at the Northeast Indiana Innovation Center as follows:

- Health care delivery – Registered nurses – January 31, 2006
- Information technology – Computer systems analysts – January 31, 2006
- Advanced manufacturing – CNC-MIMMs and Industrial engineers – February 2, 2006

At these functions, SSI staff presented statistical information on general skill needs and cross-cutting root causes as well as relevant targeted SSI shortages (both occupational and skill-based) and root causes. Non-solution providers were encouraged to brainstorm potential solutions and present them to solution providers. Solution providers were also given time to share any potential solutions for feedback from industry representatives. This open-ended dialogue fostered a free-flow of concepts and innovation between participants.

Review and analysis of letters of intent

Letters of Intent from interested potential solutions providers were due to SSI staff via email at noon on February 6, 2006. 34 separate letters of intent were submitted.

SSI staff reviewed the 34 letters and presented their findings to the SSI lead team and consortium members at a meeting on February 8, 2006. Members of either the lead team or consortium who submitted letters of intent or offered support to another organization's letter of intent were recused from the meeting for reasons of conflict of interest. The combined lead team/consortium group endorsed the staff findings. Excepting those whose letters of intent were later deemed ineligible (when comparing the proposed solution against the "allowable expenditures" spreadsheet), those solutions are the foundation of this report.

The RFI left open a myriad of possibilities in the negotiation stage:

- **Accept the letter of intent without modification**

No letters of intent were accepted without some form of modification.

- **Reject the letter of intent without modification**

Letters of intent that were rejected outright were either ineligible against the "allowable expenditures" spreadsheet, offered incomplete letter of intent packages (not submitting a budget, for example) or offered solutions that had no bearing to the EGR-3 SSI skill shortages and root causes.

- **Modify the letter of intent**

Every solution offered in this report was modified. In some instances, the modifications were technical, such as further developing intended outcomes or filling out the relevance of root causes to the proposed solutions. In other instances, entire elements of a proposed solution were added or removed.

- **Merge letters of intent together as philosophically applicable**

SSI staff suggested one merger of letters of intent but was unable to gain the approval of both parties.

- **Identify other funding sources for the letter of intent**

Our goal throughout the SSI process was to systematically incorporate the knowledge gained through SSI into the entire NIWIB scope of work. The generally-accepted work skills and cross-cutting root causes (especially the issues related to K-12 education), both outlined in the Root Cause report, have had a significant impact on how the NIWIB staff approaches its program delivery. Thus, we felt it best to look at other WIB funding sources for program placement before attaching it to the formal SSI application.

Policy determinations

In addition to the proposed solutions portfolio presented in section 3, SSI leadership determined a number of policy directions that may be manifested at the federal, state or local level.

- **A statewide effort to address The Ambition Gap**

Studies like Carnegie Mellon professor Richard Florida's ongoing "creative class" work demonstrate conclusively the correlation between a well-trained workforce and economic

viability of communities.² Others, like Dr. Richard Curtain in his paper for Manpower Services of Australia, lay out a shift in workforce skills away from routine and manual labor toward expert thinking and complex communications skills.³

The EGR-3 SSI Root Cause report's working title was "The Ambition Gap," and for good reason. Root cause focus groups and shortage phase interviews revealed a level of cultural complacency about the need to adapt to changing market demands at a personal level. Both supply and demand group comments about lack of basic workforce skills as identified in section 2.2.2.1. and negative comments about poor public utilization of past workforce programming (especially on rapid response efforts – where one would think that the desire to retain oneself would be strongest) lead us to conclude that a gap in personal ambition exists. This would not be altogether unexpected; the conservative nature of the Hoosier population makes it skeptical, if not outright resistant, to change.

While that skepticism may be useful in deterring "flavor of the month" concepts, its manifestation in a lack of ambition is devastating to our economic outlook. An ill-trained workforce cannot, by definition, become a "creative class." Nor can a manufacturing workforce of yesterday fill the roles of CNC-MIMMs today and tomorrow, or the data entry processor of 10 years ago become the computer systems analyst of today. Our collective skills can be improved through our existing inventory of training options, but the population has to understand that it is in their personal best interest to improve their skills to improve both their professional outlook and their community's economic health.

This is not an isolated issue in EGR-3, so we recommend that the State of Indiana carefully consider the concept of The Ambition Gap as an issue of statewide importance. If they agree with our conclusions, we suggest that the State develop and conduct an expansive social marketing campaign to address this critical issue for all elements of our population.

- **Connect the emerging workforce with the world they will face after high school**

One of the strongest impressions of the EGR-3 SSI process was formed when SSI staff conducted Root Cause focus groups with a vocational career center, a Career Majors Academy and a general studies high school. The students at schools that focused on preparing for the "world outside" had a clearer perspective on what it would take to achieve their already-forming life and career goals. In contrast, those who attended the general studies high school were the least focused. In an era when our available workforce is contracting due to Baby Boomer retirements, we literally cannot afford to lose a single worker.

Any efforts to refocus secondary education career counseling and vocational education should be encouraged. The public, however, appears to lack the appetite to invest in traditional vocational education. The **Careers Major Academy** program appears to be a realistic middle ground that allows students to learn in a general studies high school environment (replete with extracurricular activities, sports, etc.) while clearly establishing the expectation that some level of post-education awareness develops in our youth.

² Detailed information about Florida's work can be obtained at <http://www.creativeclass.org>.

³ Curtain, Richard. "Manpower: Future World of Work, 2005 series, Paper No. 1 – Future Workforce Skills: Some Pointers and Options for Managers in an Uncertain World." Manpower Services (Australia) Pty. Ltd., May 2005.

Allen County's Leo Junior/Senior High School is a statewide leader in this concept, demonstrating that it is possible to conduct meaningful career preparatory education and exceed the many other expectations (statutory and societal) foisted upon secondary education. **The State of Indiana needs to support and invest heavily in the universal applicability of the Career Major Academy concept a best practice in public education.** Each graduating senior in EGR-3 should have a "career plan" for post-secondary education and the opportunity to participate in experiential learning within related companies/organizations. Denying them that basic opportunity places them at a competitive disadvantage in life.

- **Challenge business and education to align their efforts for mutual gain**

Eliminating the silo effect will only happen if everyone recognizes the value of working together in a constructive environment. As the silo effect is a societal root cause of many skill and occupational shortages, our community needs to recognize that fact and consciously work to develop a meaningful sense of systems thinking with real world outcomes.

If educators feel that the current environment of high-stakes testing has forced them into a silo, community and business leaders must do everything in their power to keep them engaged in the community. The Leo High School example demonstrated that life-relevant, applied learning can foster a high-achieving academic population. Educators should reach out to business leaders to build that model in their schools. If they do not, business leaders should take the lead. Regardless, the ties between education and career must be meaningful and develop positive outcomes for students.

Illustrating our point, IPFW's Office of Technology Services developed a graphical concept outlining the skills that need to be developed in emerging workforce to create "business technology integrators" – another name for SSI's computer systems analysts but also supporting the larger societal need to ensure information technology savvy in the entire population.⁴ These skills can be developed in high school, community colleges or at four-year universities. Their notion of developing skills along the learning continuum demands that outside inputs, like business and community, provide relevance for applied learning.

- **Foster a culture of continuous learning**

Continuous learning in our workforce should not be taken for granted. It is, however, a necessity as technologies constantly change the ways that we work and live – especially in our SSI-targeted occupations. A positive of the SSI process is the conscious determination at the policy level that it takes a combined effort of both the public and private sectors to create change in our workforce. **Future EGR-3 workforce efforts should be focused on continuing to promote continuous learning, especially in environments where employers are willing to invest their own capital in their employees' continuing education.**

In addition, our emerging workforce must view their graduation with the understanding that their diploma is not an end but a beginning. In order to succeed in life, we all need to constantly develop our skills, be it through a four-year degree, a two-year degree, a technical certificate or an online continuing education course. **It is incumbent on our both**

⁴ IPFW's graphic is located in section 5.3.

our education system and our region's families to ensure that our youth realize that we can never stop learning.

- **Market northeast Indiana - both inside and outside our borders**

As mentioned earlier, the still-emerging Regional Marketing Partnership (RMP) is needed to help EGR-3 work through one of its three cross-cutting root causes of SSI-targeted skills and occupational shortages, that of better selling the virtues of our region. **Hopefully, the RMP will recognize that its mission may include recruiting workforce as well as employers to northeast Indiana.**

Marketing our region to our existing workforce is at least as important. Northeast Indiana is an excellent place to work and have a quality of life that other regions of the country envy. Sadly, we focus all too often on the negative aspects of life in our region. **Changing our community's self-image will take the collective effort of business, government, community and media. Until these basic perceptions change, EGR-3 should expect to lose its best and brightest.**

- **Encourage long-term visioning in community, economic and workforce development**

It is clear that, in the midst of EGR-3 wrenching economic transition to the 21st century global (and knowledge-based) economy, that our region is at a crossroads. We know that the old models of economic alignment will not work in this new world order, but SSI research revealed that little visioning has been done to align our region with the new economic realities that we face.

This fact is alarming in its own right, but it also presents workforce planners with the challenge of trying to align a workforce toward an undefined outcome. EGR-3's SSI process reflects this situation. Without specific guidance as to new industries or growth targets for our efforts from community and economic development officials, SSI leadership was left to infer and use intuition in drawing its conclusions.

Community, economic and workforce leaders must develop a shared vision for our region's future. This vision should come through an agreement drawn from consensus building, not dominated by any one entity. Workforce planning has a meaningful role in this process; NIWIB's position as one of just a few truly regional organizations makes it a likely convener for this dialogue as well as a provider of important workforce research to drive conclusions. Achieving a positive outcome from this dialogue will take time – years, perhaps – so we have no time to waste.

Proposed solutions

One of the most profound root causes was the need to consciously avoid the silo effect and to develop a systems thinking approach in our regional culture. We integrated that thought process into our design of our solution portfolio.

We placed a priority on systemic solutions, or SSI solution concepts that addressed more than the symptoms of our region's problems. In a number of areas, solutions' applicability transcends individual occupational boundaries.

Our solutions follow, listed in order of EGR-3 SSI priority:

PAGE	PROPOSED SSI SOLUTION	PRIMARY SPONSOR	OCCUPATION(S) ADDRESSED
24	Center for Excellence in Advanced Manufacturing	Ivy Tech Community College Northeast	CNC-MIMM
39	Advanced Business Technology Solutions	Business Enterprise and Systems Technology (BEST) Institute at Indiana University-Purdue University Fort Wayne (IPFW)	Computer systems analyst
53	Northeast Indiana TechNet	Prairie Quest Consulting	<ul style="list-style-type: none"> • CNC-MIMM • Computer systems analyst • Industrial engineer • Registered nurse
67	Nursing Clinical Placement Clearinghouse	Fort Wayne Medical Society	Registered nurse
77	Logistics Training Development	Marion-Grant County Chamber of Commerce	<ul style="list-style-type: none"> • Computer systems analyst • Industrial engineer
95	Contemporary Manufacturing & Technology Boot Camps	IPFW School of Business and Management Sciences	<ul style="list-style-type: none"> • Industrial engineer • Computer systems analyst
108	IPFW Comprehensive Nursing Solutions	IPFW School of Health Sciences	Registered nurse
126	Registered Nursing Training and Career Ladder Development	Grant County Economic Development Council	Registered nurse

Center for Excellence in Advanced Manufacturing

Solution description

According to the EGR-3 Strategic Skills Initiative skills shortage report, “The economy of northeast Indiana has long been dominated by the manufacturing sector. The concentration of employment and wealth creation associated with this sector has historically been very good to the region.”⁵ Much of this manufacturing is based in automotive supply chain operations which historically has required little workplace literacy nor skill diversification of its employees.

True manufacturing skills diversity has always been a target of the hundreds of tool and die shops in the region. As most industry experts will agree, almost all new innovation that results in creating consumer goods for the marketplace must first be designed and developed in a tool, die and engineering operations before moving to high output production operations.

Many EGR-3 tool and die shops disappeared over the last ten to fifteen years due to globalization and market pressures, but those that have remained survived because they invested in new forms of technology. These investments have included not only upgrades in capital equipment but also adoption of next generation manufacturing processes, engineering capability and quality systems integration such as ISO, QS-9000, Lean, Six Sigma and other programs.

Unfortunately, public and private investment in advanced training for human capital has not been commensurate to industry investment in advanced technology. Workers are still being recruited according to the old Standard Occupation Code paradigm, but they are expected to have sufficient skills to perform other duties as needed.

SSI research also revealed that a new, de facto hybrid occupation has been formed from five Standard Occupation Codes derived from computer numeric controlled manufacturing (CNC) processes, which we refer to as CNC-MIMM. The five component occupations are:

- Industrial Machinery Mechanics (Standard Occupational Code 49-9041)
- Maintenance and Repair Workers, General (49-9042)
- Maintenance Workers, Machinery (49-9043)
- Computer Controlled Machine Tool Operators & Tenders, Metal & Plastic (51-4011)
- Machinists (51-4041)

According to the American Society of Training and Development magazine, 81 percent of respondents to a survey of manufacturers reported that they could not find qualified workers. When area employers and workers indicate that work skills are lacking in the manufacturing workforce (as arose repeatedly in the root cause phase of EGR-3’s SSI planning process), they are referring to lack of workplace literacy and the cross-functional skills of a CNC-MIMM.

Without a meaningful, systemic solution to this skill shortage, EGR-3’s manufacturing proficiency could be eroded not by a lack of employer investment in technology but rather by an inability of the region to provide the multi-skilled workforce necessary to compete in the flat world described by Thomas Friedman.

Ivy Tech Community College – Northeast (ITCCNE) proposes a systemic SSI solution – to create a “Center for Excellence in Advanced Manufacturing.” The Center for Excellence will be a

⁵ “Rebuilding our Technological Heritage: The Northeast Indiana Strategic Skills Initiative Skills Shortage Report,” p. 11.

single point of entry for manufacturing employers to access education and training resources to develop the human capital component of northeast Indiana's advanced manufacturing firms. This solution will generate the following outcomes:

- A world class program that can compete in developing technologically superior knowledge workers for globally competitive industries (i. e. orthopedic, aviation, aerospace, plastic thermoforming, injection molding, photometric, advance materials, metal fabrication and other precision machining)
- The creation of an elite group of highly skilled manufacturing specialists that will lead to improved perceptions about jobs in the manufacturing clusters⁶
- An active recruiting resource for employees trained in manufacturing core competencies and in "niche" specialties
- Collaborative Industry-Education partnerships for specialized training, applied learning experiences, lifelong learning, and skill enhancement opportunities
- A single, reliable source for the region's *highly skilled* manufacturing workforce training opportunities
- A market-responsive Community College system that consistently adds productivity to manufacturing employers' businesses

Pre-Apprenticeship Training Academy

The first phase of this solution, for which SSI funding is not being requested but is critical to success of training provided at the Center, is the establishment of an ITCCNE screening mechanism known as the Pre-Apprenticeship Training Academy (PTA). The PTA is designed to assess and train for basic skills and literacy of workers interested in entering the SSI component and their commitment to a lifelong learning process. Those completing this primary phase will possess skills needed to pass the standard pre-apprenticeship entrance examination. Screening will be accomplished using WorkKeys assessments, and targeted remediation will be offered through already-available ITCCNE coursework and KeyTrain skills remediation software.⁷

CNC-MIMM training program delivery

Phase two, for which SSI funding is requested, recruits successful candidates of the PTA to compete in an advanced phase of training and development, which can be realized through a coordinated curriculum.⁸ This program will offer industry-recognized certifications:

- U.S. Department of Labor Bureau of Apprenticeship Training (BAT) Journeymen certification
- Manufacturing Skill Standards Council (MSSC) Certification for High-Performance Manufacturing
- National Institute for Metalworking Skills (NIMS) certification
- American Welding Society (AWS) certification

Programming can be delivered through a uniform BAT-endorsed program or a custom-designed company-sponsored training program. All participants will receive ITCCNE credit, which will facilitate their progression toward an ITCCNE Associates of Science degree.

⁶ Emerging workforce root cause: Fear of manufacturing

⁷ Root cause no. 1: High school graduates have insufficient academic preparation for this occupation

⁸ Root cause no. 6: Workers at lower skill levels find it difficult to upgrade their skills to qualify for more senior roles

Because modern manufacturing requires a diverse array of skills, there will be a need for ongoing industry advice as to the Center's core skill instruction content as well as industry-specific specialties.⁹ ITCNE is a founding partner in the Northeast Indiana Toolmaker Resource Organization (NITRO), giving them a network of industry experts from which to draw market-driven knowledge. NITRO's engagement will further ensure utilization of the Center's training offerings.

Another benefit of an industry knowledge base like NITRO is the inherent efficiencies in developing applied learning environments. Incumbent workers can avail themselves of the Center to enhance their skills, which can be put to immediate use on the shop floor.¹⁰ Employers will have ready access to intern and apprentice-ready workers who have completed the PTA program (from both the emerging and dislocated workforce), giving the worker the chance to apply his or her learning immediately for both their benefit and their employer's.¹¹

Center students will be encouraged to concentrate their education toward any one of the five CNC-MIMM component occupations, but they will be required to achieve a sufficient level of cross disciplinary training in order to adequately perform the other four occupational roles.

The cross disciplinary nature of this program will bridge the gaps between current manufacturing technology training and the needs of the marketplace. Some baseline skills will be included, such as:

- Math
- Blueprint reading
- Machining processes
- Basic welding
- Metrology

Advanced skills training will be offered, including but not limited to:

- Lean manufacturing
- Industrial safety
- Design methodology
- Process analysis and improvement
- Project management
- Work instruction documentation
- Troubleshooting:
 - Pneumatics
 - Hydraulics
 - Electrical
 - Allen-Bradley PLC5
 - SLC500

Scholarships into this program may also be offered to successful PTA participants to help them continue their education and career ladder development through phase two.¹²

Further assistance in developing workers for this high tech manufacturing field will occur through a mentoring program embedded into the overall initiative.¹³

Equipment allocation

A critical issue in the development of a Center for Excellence in Advanced Manufacturing is the ongoing procurement of modern production equipment on which to train students.¹⁴ ITCNE

⁹ Root cause no. 5: Capacity of training institutions is inadequate to prepare workers in this occupation

¹⁰ Root cause no. 6: Workers at lower skill levels find it difficult to upgrade their skills to qualify for more senior roles

¹¹ Root cause no. 4: Not enough practical experience for students with area employers

¹² Root cause no. 7: Workers feel there is no opportunity to advance from their present position

¹³ Root cause no. 2: Potential workers have unrealistic expectations of what it's like to work in this industry

¹⁴ Root cause no. 5: Capacity of training institutions is inadequate to prepare workers in this occupation

has pledged to redirect \$250,000 in production equipment from its Ashley, Indiana educational center to this effort. All of this represents modern, state-of-the-art equipment; ITCNE's production equipment procurement policy calls for five-year leases to cycle new equipment into the classroom labs on a regular basis.

The intention of the plan calls for ITCNE to secure new CNC equipment through their procurement process.

ITCNE's solution to the challenge of teaching on the newest equipment is to entice a widely-respected manufacturer(s) of CNC equipment to rotate "loaner" units through the Center for Excellence in Advanced Manufacturing. This is a win-win-win scenario: the manufacturer has a de facto showroom in the heart of CNC manufacturing country, ITCNE is relieved of a major equipment funding burden and ITCNE's students learn on the absolute latest technology – providing effective preparation for the equipment they will use in their place of employment.¹⁵ This is an ideal public-private partnership.

ITCNE has made initial outreach in this direction; like any visionary concept, it has been met with some early acceptance by equipment manufacturers.¹⁶ However, the manufacturers are still waiting for more concrete details of a facility and community support plan. We propose that the Strategic Skills Initiative match ITCNE's commitment by seeding a demonstration project in the truest sense of angel investment: a one-time, short-term equipment lease that will clearly demonstrate the viability and vitality of this educational/commercial concept to any reluctant manufacturer.

Further capital expenditure will occur when partnerships are solidified between all stake holders. These stake holders are corporate sponsors (primarily equipment manufacturers) though we are awaiting letters of confirmation, consortium employers, local economic development corporations, Chambers of Commerce, one or more Ivy Tech regions and one or more Workforce Investment Boards.

Capital expansion

ITCNE market research clearly has shown that the need for a unique Center for Excellence in Advanced Manufacturing exists.¹⁷ Specifically, they learned that significant CNC-MIMM activity flows between the hubs of Fort Wayne and Warsaw to the east and west and Noble and Wabash Counties to the north and south. These criteria led EGR-3 SSI and ITCNE to conclude that ideal placement of a Center would be adjacent to U.S. 30 in Whitley County. This geographic location places it within a very short drive of nearly every CNC-MIMM center in northeast Indiana.

Geographic positioning of the Center is a critical factor. Warsaw's manufacturers largely outsource to the east in EGR-3 (manufacturers in Albion, Kendallville, Churubusco, Columbia City, North Manchester, South Whitley and Fort Wayne act as orthopedics suppliers). Several Tier One and Tier Two suppliers to orthopedic and automotive industries are currently located within a 20 minute commute of this location. There are also two major state highways and one major federal dual lane highway that permit ease of travel to this setting. Potential expansion of a successful steel mini-mill close to this locale is also a consideration that impacts this choice of

¹⁵ Root cause no. 2: Potential workers have unrealistic expectations of what it's like to work in this industry

¹⁶ ITCNE has contacted 5 leading machine tool manufacturers and several sub-suppliers regarding this project.

¹⁷ Root cause no. 5: Capacity of training institutions is inadequate to prepare workers in this occupation

sites. The Whitley County EDC is also considering a small regional airport project based on the proliferation of new aircraft manufacturing operations that will likely occur as the result of technology transfer initiatives. Logic thus dictates that the systemic growth of Indiana's advanced materials manufacturing cluster down the U.S. 30 corridor toward Fort Wayne supports the conclusion that the Center be located in Whitley County. The jobs created for these industries will require the skills training that the Center for Excellence in Advanced Manufacturing will offer.

Other critical community resources are willing to be leveraged to locate the Center in Whitley County. The Whitley County Economic Development Corporation is willing to explore means to support the Center in its home territory; in addition, they are actively soliciting other local, public-private support for this proposed project.

A progressive ramp-up of the Center should occur as partnerships are further solidified as we wait for facilities to come on-line. All programs initially can be offered at ITCCNE's Fort Wayne campus with a smaller cohort program in Whitley County. However, the market to be served dictates, for all of the reasons stated, that this approach would be a stop-gap measure until the full program of work (including, but not limited to, site identification and procurement) is developed.

Marketing materials

Results from the root cause phase of the SSI project indicate that there is little or no desire on the part of young workers to become involved in manufacturing. Much of this reluctance is attributed to the negative public perceptions of manufacturing jobs.¹⁸ Yet the jobs available for the type of knowledge workers created by the CNC-MIMM training refute this perception.

In order to attract incumbent, dislocated and new workers to this trade category, a public relations campaign designed to promote these jobs for what they truly are is imperative. Extremely clean work environments, state of the art equipment and high wages with good to excellent benefits are the norm. Therefore a consolidated marketing and communication campaign between partner organizations, ITCCNE, industry and corporate partners to promote this Center as a source of knowledge development for manufacturing will be necessary. Individuals who are engaged in this Center, at all levels, will be recognized as an elite core of knowledge workers and problem solvers.

This campaign will require regional print, radio and television advertising along with national recognition in industry publications. Participation and a visible presence at the International Machine Tool Show in Chicago to promote Indiana's dedication to creative development of this job classification will be a part of the marketing strategy.

¹⁸ Emerging workforce root causes

Funding request

Item	Year 1 SSI Funded	Year 2	
		SSI Funded	Match
Project Manager - Salary w/ benefits	\$35,000	\$8,750	\$8,750
Lead Instructor - Salary w/ benefits	\$37,800	\$18,900	\$18,900
Assistant Shop Floor Instructor - Salary w/benefits	\$25,200	\$12,600	\$12,600
Administrative Support (p/t)	\$7,300	\$3,650	\$3,650
Subtotal- Salary & Benefits	\$105,300	\$43,900	\$43,900
Contracted program evaluation services	-	\$3,000	\$3,000
Contracted marketing services	\$10,000	\$5,000	\$5,000
Contracted "Train-the-Trainer" services	\$8,000	-	-
Subtotal – Contracted Services	\$18,000	\$8,000	\$8,000
Travel for staff	\$1,000	\$1,000	\$1,000
Subtotal - Travel	\$1,000	\$1,000	\$1,000
Materials and supplies – Books	\$13,000	\$6,500	\$6,500
Materials (Steel, perishable tooling and shop supplies)	\$20,000	\$15,000	\$15,000
Certification voucher costs	\$2,000	\$4,000	\$4,000
Subtotal Materials and Supplies	\$35,000	\$25,500	\$25,500
Overhead and Support Services - phone, rent, internet, copier, maintenance, utilities	\$75,000	\$37,500	\$37,500
Subtotal overhead and support services	\$75,000	\$37,500	\$37,500
Equipment Lease: Machine tool 1 – Mazak Integrex 100 (tailstock)	\$65,000	\$32,500	\$32,500
Equipment Lease: Machine tool 2 – Mazak Variaxis 500	\$65,000	\$32,500	\$32,500
Subtotal – Equipment leasehold	\$130,000	\$65,000	\$65,000
Total	\$364,300	\$165,900	\$165,900
Total Two-Year SSI Funding Request	\$545,200		

Action plan

Who will do what	Results expected from the action	How existing regional resources in the public and private sector will be reallocated and/or leveraged to carry out the planned activities
ITCCNE will provide training curriculum	All modules that constitute the requirements for certifications and/or credit side degree credentials	ITCCNE will utilize many of its existing programs to create required curriculum that meets the employers requirements
ITCCNE will provide some equipment for the center	Equipment required to teach most base skills can be in place in a very limited time	ITCCNE is committed to transfer from its regional inventory approximately \$250,000 worth of training equipment to the new Center
JobWorks	Eligible students	New students from dislocated worker programs will be directed to the program
Northeast Indiana Toolmaker Resource Organization	Eligible students and apprenticeship candidates	Students currently enrolled in BAT certified apprenticeship programs will be encouraged to participate in the Center programs.
Northeast Indiana Toolmaker Resource Organization	Equipment and support	Equipment, project materials, perishables and facilities assistance
Whitley County Economic Development Corporation	Site for the Center for Excellence in Advanced Manufacturing	Assist with site location and development.

Timeline

Implementation dates	Responsible parties	Resource allocation
Move equipment into Center July 1, 2006	ITCCNE & Northeast Indiana Toolmaker Resource Organization	\$250,000 in kind from ITCCNE
Additional leased CNC equipment placement July 15, 2006	ITCC-NE & Northeast Indiana Toolmaker Resource Organization	<ul style="list-style-type: none"> \$300,000 from SSI Additional matching equipment lease from ITCCNE
Apprenticeship registration	Northeast Indiana Toolmaker Resource Organization	Company sponsored program reimbursement
Dislocated and new student registration	JobWorks and ITCCNE	Scholarship programs
Center Grand Opening August 18, 2006	All partners	
Classes begin August 21, 2006	ITCCNE	Tuition
Program and Center 1 st year evaluation June 01, 2007	All partners	

Sustainability measures

- **Criteria:** Align technical training opportunities with CNC-driven advanced materials manufacturing industry.
Metric: Creation and biannual maintenance of a database of warehouse systems management personnel positions in EGR-3 through employer surveys and interviews. Project shortages and share data with JobWorks and WorkOne partners to identify potential training candidates and career opportunities.
- **Criteria:** Develop technically proficient CNC-MIMM workforce to meet current and projected industry demand.
Metric: Create a regional pool of CNC-MIMM personnel to fill the existing and near-future needs of the industry. Specifically:
 - Number of students enrolled in Center for Excellence in Advanced Manufacturing's Pre-Apprenticeship Training Academy education classes at ITCCNE in each semester
 - Number of students enrolled in the Center for Excellence in Advanced Manufacturing's CNC-MIMM training program in each semester**Metric:** Track outcomes by quantifying the number of participants in the CNC-MIMM program who have achieved the following certifications or degrees on an annual basis:
 - American Welding Society (AWS) certification
 - ITCC Associates of Science degree
 - Manufacturing Skill Standards Council (MSSC) Certification for High-Performance Manufacturing
 - National Institute for Metalworking Skills (NIMS) certification
 - U.S. Department of Labor Bureau of Apprenticeship Training (BAT) Journeymen certification
- **Criteria:** Build partnerships between advanced manufacturing industries and public sector partners to build the industry in EGR-3
Metric: Assemble and convene EGR-3 advanced manufacturing advisory council under leadership of motivated third party (economic development or chamber of commerce leadership?), consisting of at least sixty percent industry leaders and including EGR-3 economic development leaders and the ITCCNE Center for Excellence in Advanced Manufacturing program manager, with the role of:
 - Facilitating quarterly dialogue between ITCCNE and industry representatives
 - Developing a meaningful forum for industry participation in Center program development and sustained impact throughout the region
 - Conducting biennial industry focus groups of non-advisory council members to ensure that Ivy Tech keeps curriculum relevant to industry requirements; reporting the results of the focus groups to Ivy Tech and the advisory council in a timely manner
 - Determining means of growing advanced manufacturing as an industry cluster in EGR-3 through alignment of targeted economic development and workforce development

Response from outside agencies

"I would like to take a moment to communicate with you what we believe is a tremendous opportunity here in Whitley County. Currently, Whitley County is in the midst of a manufacturing up swing. There are a tremendous amount of businesses in our area that are High-Tech Machining oriented. In as much as there is a high demand for individuals with High-Tech Machining experience, individuals with the skill level required is in short supply. Persons with the necessary amount of expertise are getting their training outside of our community, and consequently are finding employment else where. As the greater Fort Wayne area continues to stretch to meet Whitley County, I feel that it is vital to give area businesses the chance to keep there businesses staffed by local people.

"With Tremendous growth in the Medical Field, specifically in Orthopedics, Whitley and Allen County must increase the supply of skilled labor to remain competitive with Kosciusko County. It is my opinion that the addition of an Advanced Machining Training Center within Whitley County would be a great asset not only to this area but to Ivy Tech as well.

"Oak View Tooling has already committed itself to the ongoing education of our employees to help meet the needs of our customers and the ever changing orthopedic environment. The Whitley County Economic Development Coalition obtained a grant from the State of Indiana to pay for our employees continued education through Ivy Tech Community College. However, this grant only covers current employees, and the practical training these employees get in the field of grinding is done in house do to the fact that this trade is not included in the curriculum. We here at Oak View Tooling Inc. wish to submit ourselves as recourse to Ivy Tech Community College in the effort to further develop the skills of our workforce and support the economic development of the State of Indiana."

Mathew T. Dahms

President & CEO Oak View Tooling Inc.

"I found the information presented to be very accurate and very thorough. I truly believe that Area 18 has two wonderful Precision Machine Trades programs - exactly what our high schools need - a place to begin the training for these skilled occupations that are very much in demand. If I am reading the literature correctly, Ivy Tech would be the educational component in the program delivery and people getting the training from this grant would be Ivy Tech students. I truly believe this will be the right place for the training.

"I am especially impressed that you want a strong marketing component. This is what Area 18 has struggled with the most - getting young (and parents of young) to appreciate the value of the manufacturing jobs - to see that it is an excellent option for our workers of tomorrow. We work hard on that in our area and often feel like it is an impossible task. We are thrilled that you are writing this grant proposal. I think it is a very viable and workable opportunity. Please count us in on our support of this endeavor."

Judy Emshwiller

Director, Area 18 Career & Technical Education Office

“Through Workforce Investment Act (WIA) activities, JobWorks has worked with many regional employers that are engaged in advanced manufacturing processes. From our work, JobWorks has seen first hand the need for advanced, multi-skilled CNC training programs to meet the workforce needs of these employers. Simply put, advanced manufacturers in northeast Indiana are having a real challenge finding the multi-skilled CNC workers they need. The Ivy Tech proposal to create a Center for Excellence in Advanced Manufacturing, complete with state of the art CNC equipment, is exactly what this region needs.”

Gary Gatman

Vice President, JobWorks

“The Area Secondary Vocational Education Office, through its major educational institution, the Anthis Career Center, fully supports and will actively engage high school students in secondary school preparation for advanced course work in the area of advanced manufacturing.

“Anthis Career Center's high school Industrial Technology program suffers due to one of the root causes identified by this proposal: ‘Fear of manufacturing in the emerging workforce.’ We are working hard to communicate to young people and their families that this is an irrational fear not founded in reality. Our current program emphasizes four of the twelve skills addressed by this proposal: Math, Blueprint reading, Machining processes, and Basic welding. However, we understand that in order to attract potential students, we need to broaden our skill offerings. Therefore, we are very open to incorporating many of the other eight skills and look forward to how that will mesh with the Ivy Tech program.”

Ron Flickinger

Area Director of Secondary Career and Technical Education, Anthis Career Center


In addition to Mr. Dahms, other NITRO members were contacted and offered their verbal support to this concept as indicated in the following section.

Regional industry engagement

The idea of a regional center like the proposed concept has been discussed for years in northeast Indiana, but the Strategic Skills Initiative process propelled it past concept stage. The following industry leaders have had a significant role in assisting in the organizational model for the proposed solution:

Organization and Information	Role
Dan Sheehan President Operations Consulting Group Monroeville (Allen Co.)	<ul style="list-style-type: none"> Agreed to help organize and manage consortium
Dave Bear President J.B. Tool, Die & Eng. Fort Wayne (Allen)	<ul style="list-style-type: none"> Board member of Northeast Indiana Toolmaker Resource Organization Company with BAT certified apprenticeship program Agreed to provide industry oversight and evaluation of this program
Matt Dahms President Oakview Tool Columbia City (Whitley)	<ul style="list-style-type: none"> Board member of NITRO Agreed to provide industry oversight and evaluation of this program
Don Dimberio President Global Tool and Automation Fort Wayne (Allen)	<ul style="list-style-type: none"> Member of NITRO Company with BAT certified apprenticeship program Agreed to provide industry oversight and evaluation of this program
Gary Gibson President Fort Wayne Mold Fort Wayne (Allen)	<ul style="list-style-type: none"> Member of NITRO Agreed to provide industry oversight and evaluation of this program
John Roembke President Roembke Tool & Engineering Ossian (Wells)	<ul style="list-style-type: none"> Member of NITRO Board member of southern Four County Vocational Training Center Agreed to provide industry oversight and evaluation of this program through Mike Rush, COO
Robert Muhn President TD&M Company, Inc. New Haven (Allen)	<ul style="list-style-type: none"> Member of NITRO Company with BAT certified apprenticeship program Agreed to provide industry oversight and evaluation of this program
Marc Bailey Manager HR Ward Corporation Fort Wayne (Allen)	<ul style="list-style-type: none"> Member of NITRO Agreed to provide industry oversight and evaluation of this program
Dick Conrow President C&A Tool Engineering, Inc. Churubusco (Whitley)	<ul style="list-style-type: none"> Agreed to be member of consortium Currently operates their own in-house training program through Ivy Tech

Summary

LEAD SOLUTION SPONSOR		
Ivy Tech Community College Northeast		
SUPPORTING PARTNERS		
Northeast Indiana Toolmaker Resource Organization, Whitley County Economic Development Corporation, JobWorks		
LINE OF SIGHT		
		
<p><u>Shortage:</u></p> <p>Adequately cross-trained CNC-MIMMs meeting the needs of the modern manufacturing environment</p>	<p><u>Root Cause:</u></p> <ul style="list-style-type: none"> • High school graduates have insufficient academic preparation for the occupation • Potential workers have unrealistic expectations of what it's like to work in this industry • Not enough practical experience with area employers • Capacity of training institutions is inadequate to prepare workers in this occupation • Workers at lower skill levels find it difficult to upgrade their skills to qualify for advancement • Fear of manufacturing in emerging workforce 	<p><u>Solution:</u></p> <ul style="list-style-type: none"> • Phase 1 <ul style="list-style-type: none"> ◦ Deliver basic workplace literacy skills assessment and remediation as needed (<u>Source of match funding</u>) • Phase 2 <ul style="list-style-type: none"> ◦ Create and provide certification-driven curriculum to meet demand for five-occupation hybrid skill needs, aligning coursework with a degree track for students who complete Phase 1 ◦ Integrate mentorship and applied learning opportunities into curriculum ◦ Realign Ivy Tech Community College – Northeast's Manufacturing Technology division to keep pace with market demand through customization of program delivery

SKILLS ADDRESSED	
<ul style="list-style-type: none"> • Math • Blueprint reading • Machining processes • Basic welding • Metrology • Lean manufacturing • Industrial safety 	<ul style="list-style-type: none"> • Design methodology • Process analysis and improvement • Project management • Work instruction documentation • Troubleshooting: Pneumatics, Hydraulics, Electrical, Allen-Bradley PLC5 and SLC500
REQUESTED FUNDING	
\$545,200; 50% match secured for year two	
RECOMMENDED SSI FUNDING CATEGORIES	
<ul style="list-style-type: none"> • WIA Optional (Allowable) #1: Provide capacity building & technical assistance to local areas, including local boards, One-Stop operators, One-Stop partners, and eligible providers, which includes 1) Staff development & training, and 2) The development of exemplary program activities. • WIA Optional (Allowable) #2: Conduct research and demonstration • WIA Optional (Allowable) #3: Establish & implement innovative incumbent worker training programs, which may include an employer loan program to assist in skills upgrading, and programs targeted to empowerment zones & enterprise communities • WIA Optional (Allowable) #6: Carry out adult & dislocated worker employment & training activities as the state determines are necessary to assist local areas in carrying out local employment & training activities • State Skills 2016 (TAG) #1: To improve manufacturing productivity levels in Indiana. • State Skills 2016 (TAG) #2: To enable firms to become competitive by making workers more productive through training. • State Skills 2016 (TAG) #3: To create a competitive economy by creating and retaining jobs. • State Skills 2016 (TAG) #4: To encourage the increased training necessary because of an aging workforce. • State Skills 2016 (TAG) #5: To avoid potential payment of unemployment compensation by providing workers with enhanced job skills. • Workforce Development Funds (Block Grant) #4: To build the capacity & strengthen the quality of services of programs offering BASIC SKILLS services & having substantial volunteer component, including staffing & volunteer development, outreach, equipment, software, training materials, & community linkages. IC22-4.1-6-2 (1) • Workforce Development Funds (Block Grant) #5: For WORKFORCE LITERACY(WL) programs providing essential & basic education skills training to raise skills & productivity in the workplace. IC22-4.1-6-2(2) • Workforce Development Funds (Block Grant) #8: To provide training for dislocated workers under IC 22-4-41. IC22-4.6-2 (5) • Workforce Development Funds (Block Grant) #9: To provide training for workers who are at risk of becoming dislocated workers because of a lack of skills. IC22-4.1-6-2 (6) 	

- **Workforce Development Funds (Block Grant) #10:** To provide comprehensive job training & related services for economically disadvantaged, unemployed, & underemployed individuals, including recruitment, counseling, remedial education, vocational training, job development, job placement, & other appropriate services to enable each individual to secure & retain employment at the individual's maximum capacity. IC22-4.1-6-2 (7)

SUPPLY GENERATION POTENTIAL

Year	Ivy Tech CDC/Technical Certificate	American Welding Society (AWS) certification	Ivy Tech Community College Associate of Science Degrees	Manufacturing Skill Standards Council (MSSC) Certification for High- Performance Manufacturing	National Institute for Metalworking Skills (NIMS) certification	U.S. Department of Labor Bureau of Apprenticeship and Training Journeyman certification
2006	10	12	-	-	-	-
2007	20	20	2	5	2	-
2008	24	45	10	20	10	12
2008	24	50	20	40	24	24

Advanced Business Technology Solutions

Solution description

A significant emerging need in regional business is the ability to synthesize business practices and organizational processes with advanced information systems application capacity. Individuals with these capacities, which require advanced levels of the skill sets listed in EGR-3's basic skills and computer systems-specific skill set, bringing together a multidisciplinary perspective, are rare and extremely valuable to their employers. Information technology (IT) workers must become leaders as "business change agents/catalysts" and a knowledgeable business partner in solving problems plaguing the organization.

The mission of the BEST Institute is to build this knowledge workforce and leverage the cognitive and experiential training capacity of northeast Indiana's largest post-secondary education institution with the most advanced global business-technology integration methods.

Through its combination of education experience and subject matter, the BEST Institute meaningfully addresses a number of root cause issues related to the critical skills shortage of qualified computer systems analysts:

- **Workers at lower skill levels find it difficult to upgrade their skills to qualify for more senior roles**

The BEST Institute offers both traditional and non-traditional delivery of experiential, hands-on, practical educational delivery through traditional classroom, case studies, virtual online learning, and experiential-based project learning activities under the guidance of an educator and industry practitioner. In addition, BEST draws from the infrastructure of Indiana University-Purdue University Fort Wayne (IPFW), the larger regional community and the Northeast Indiana Innovation Center (NIIC) to identify projects, partners, and programs that meet defined workforce needs.

- **Not enough practical experience for students with area employers**

BEST offers internships, project based learning opportunities, and the ability to connect students to core, multi-disciplinary courses, courses to applied projects, and project-based learning activities to regional employers (e.g. Superior Essex, Do It Best, and Parkview Health to name a few). BEST currently employs Lilly Foundation-funded interns, frequently using local employer needs for classroom practical experiences. This dynamic environment draws key players from the Region to deliver relevant, meaningful, high impact experiences for both students and incumbent workers. A systems and multidisciplinary approach to problem recognition and problem solving will be utilized. It is expected that reinforced applied learning will lead to higher personal self-confidence, application of knowledge and motivation levels.

- **Workers feel there is no opportunity to advance from their present position**

The documented root causes of occupational shortages in this field demonstrate the need to both mitigate against the attrition of the existing workforce and ensure that a motivated pipeline of learners are focusing on these career opportunities. Workers need to know that there are ample opportunities in different career paths starting with the computer systems analyst occupation. BEST students develop transferable skills and focus on business process integration skills that build value by improving their employers' competitiveness, cost efficiency, and employment base in the community.

- **Potential workers have unrealistic expectations of what it's like to work in this industry**

BEST will focus on helping the student acquire the imagination needed to visualize how the application of technology and business dynamics can support and benefit continuous improvement efforts. BEST will acclimate students to the modern technologies and business issues in managing the application infrastructure through a holistic, multidisciplinary, integrated way of thinking to both create their own jobs/companies as well as strengthen the infrastructure for existing workers in the region.

In the process of connecting students to their individualized learning, we develop “cooperative experiences” (structured learning interventions that combine experiential and cognitive skill building) with employers who want to access these better qualified employment candidates.

By doing this, BEST hopes to create a pipeline of students who are excited about continuing their education (facilitating meaningful future work/life plans and development of career roadmaps) as well as having the competitive interpersonal and critical thinking skills to do so.

- **Difficulty in attracting analysts &/or their spouses to this area**

With such a small occupational population base, retention of existing workforce is a more immediate issue than recruiting new workforce into EGR-3. By offering incumbent workers an avenue to improve existing skills which they can then apply to their career, BEST thus offers IT professionals a reason to remain and grow professionally in Northern Indiana, cementing an occupational population foundation upon which a knowledge cluster can be built.

The BEST Institute's fundamental goal is to assist IT workers to become effective utilizers and masters of technology in solving business problems. BEST intends to expand its existing advanced technology applied learning model into the emerging field of Radio Frequency Identification (RFID) technology and associated hardware and software application through a business education program called “**Advanced Business Technology Solutions.**”

The integration of sensor based RFID – the capacity to track every item, everywhere, in real time – is predicted to be the “Holy Grail” of IT-based logistics. It is estimated that this is also one area of technology-based higher education that will be grossly neglected and thereby creating large shortages of talented IT personnel in the future. The beauty of RFID is that while logistics is predicted to be the “early adopter” industry that gives rise to widespread use of the technology, RFID's flexibility allows it to have potential in advanced manufacturing, health care, financial services and other industries where real-time asset tracking is beneficial.

Beyond RFID, the Institute proposes to conduct additional research into next-generation information technology hardware and software applications, providing BEST and IPFW with an edge in future bleeding-edge curriculum development.

To determine if we have met these objectives, we plan to capture data which will examine constructs relevant to the outcome of our success. The following constructs will be measured:

- Student knowledge of functional integration (pre-post certification)
- Employer satisfaction with student knowledge of functional integration, measuring financial impact of case studies as applicable (online survey measurement)

- Recruitment rates and starting salaries of business graduates who take this certification program (survey to both participants/employers)
- Evidence of regional outreach: Tracking companies serviced through case studies and/or secondary education students addressed in school outreach (# of students served and how they benefited from the program)
- Ongoing reporting of technology research, including expert staff opinion as to the viability of curriculum program development that integrates the latest secondary research

Adult and post-secondary learning

BEST expects to revolve our accelerated curriculum systems delivery around Advanced Business Technology Solutions, for which BEST is asking for SSI funding (addressing the need to arrange curriculum delivery by career cluster, also providing high visibility to the activities/experiences necessary for success). This “career track” is designed to be a selective, interdisciplinary study integrating the topics of Operations Management, Management Information Systems (MIS), RFID and Marketing. We will use SAP and RFID technologies and software as the facilitators.¹⁹ As business systems automate more fully in industries like health care, manufacturing and transportation/logistics, the need for technically sound Enterprise Resource Planning (ERP) managers is critical to keep northeast Indiana business globally competitive.

BEST develops learning frameworks that can enhance student decision-making in and understanding of the following emerging areas that will strengthen EGR-3’s global competitiveness and create transferable skills that cross industry boundaries. It is designed as a selective, interdisciplinary study that integrates topics of operations, strategy, marketing and IT. It aims to develop frameworks and tools that can aid decision-making. Key elements include:

- Building value to the customer through advanced technology and business systems integration
 - Radio Frequency Identification (RFID)
 - A comprehensive analysis of RFID both at the theoretical and practical level
 - Sensor Based Management tied to RFID to create real-time SCM
 - Warehouse Management Systems (WMS), which are responsible for major productivity solutions in today’s modern companies
 - Collaborative Planning, Forecasting and Replenishment (CPFR) - the next phase of collaboration with suppliers
 - Global Registries – Educating the person on the latest technologies now mandated by industry leaders as diverse as the Department of Defense and Wal-Mart
- IT & business processes
 - Business Process Improvement
 - SAP and ERP
 - Predictive Analytics, Business Intelligence Gathering/Data Mining and Target Marketing. This aspect will allow the current student to be able to apply analytical judgment just as Six-Sigma students view the work environment

¹⁹ SAP is the ERP business system used by 61% of the world’s largest companies, including Indiana’s Eli Lilly.

- Supply Chain Management (SCM) taken to the next level of Value Driven Supply Chain Management
- Enterprise backbone and internal processes
 - Vendor Managed Inventory (VMI) which is a collaborative effort by companies and supplier to cut cost
 - Customer Resource Management (CRM) - one of the fastest growing segments of software needed by companies
 - e-Procurement
 - Electronic Data Interchange (EDI) - the format allowing the companies to exchange data

This combination of content and educational approach is innovative and unique in higher education. We are not aware of a similar program in Indiana; there are just a handful of similar programs around the country. As such, the BEST Institute has the capacity to attract regional and industry experts in this subject matter to expand the learning experience for students.

After participating in Advanced Business Technology Solutions, an incumbent worker/student will be able to:

- Optimize key internal customer and supplier business processes in integrated business organizations through a rigorous systems analysis process of problem-solving and developing customized solution to unique customer needs
- Examine how companies use e-business in product strategy to create the “lean” systems paradigm (faster, cheaper, better)
- Performing pilot studies or the initial phase of RFID roll-outs for companies – giving real-world application to the subjects discussed in the classroom and examined in the BEST RFID lab
- Depending on the application demands, students could integrate solutions like these into the following business/organizational processes (ERP, WMS, Receiving, Shipping, Asset management, WIP, CRM, EDI, and Lean Manufacturing)

The BEST Institute lab used throughout the proposed course specializes in technology for Business Process Reengineering (BPR) and or Business Process Automation through the use of technology. BEST is using the next generation RFID software for sensor based process management. The lab is capable of offering Universal Price Code radio frequency (UPC RF) or RFID solutions, the cornerstone of emerging business automation processes. This lab, which currently is housed at the Northeast Indiana Innovation Center through underwriting of regional business partners and IPFW, will require additional capacity if we are to grow the program through the proposed certification program.

Case studies

RP Global Technology Solutions LLC works with the BEST Institute and offers financial support to IPFW through a mutually beneficial financial arrangement. Depending on the case study subject's requirements, some of BEST's case study projects are sponsored by IPFW and others by RP Global Technology Solutions LLC.

Every class will conduct two case studies per semester, giving students the opportunity to learn in a small-group, team-oriented environment and develop a number of the thinking and people skills that all employers demand in their new hires.

RP Global procures state of the art technology lab equipment and software, and BEST trains students on these concepts. Students will learn this technology in a collaborative environment

and teach it back to BEST staff as a “train the trainer”. Staff will then schedule meetings with companies in EGR-3 to demonstrate this technology. BEST students accompany staff on these case study exploratory visits and assist in presentations. Experience has shown that this applied learning model is an ideal method of emerging technology education. Not only are students learning the technology, they are seeing how other companies can apply these solutions. They can also network with these companies to get future jobs.

Collegiate credit and certification potential

As part of BEST’s desire to align itself with SSI, BEST Institute staff submitted this concept as a proposed three-credit course offering in the IPFW School of Business and Management Sciences. IPFW’s accreditation board approved the application on February 23 for a Fall 2006 semester launch.

Other BEST applied technology concepts (two three-credit courses for both BBA and MBA students, covering SAP and ERP) have been approved. Past courses have been offered through the School of Business, but experience demonstrates that nearly twenty-five percent of the class rosters come from the School of Engineering, whose students take BEST courses as electives. Past experience shows that 40-45 IPFW students take each BEST course in a semester, and BEST intends to open up the course to non-IPFW students in year two to allow for an even wider level of applied learning about these important technologies.

Regardless of IPFW’s determination, APICS – The Association for Operations Management has approved the concept for part of the curriculum required for the following three certifications:

- Certified in Production and Inventory Management (CPIM)
- Certified Supply Chain Professional (CSCP)
- Certified in Integrated Resource Management (CIRM)

In addition, BEST is pursuing curriculum applicability from the Institute for Supply Management (ISM) for its Certified Purchasing Manager (CPM) program. With the SSI endorsement, achievement of this status will be another priority action item.

Secondary education outreach

Through SSI, BEST will connect the RFID learning laboratory with EGR-3’s progressive high schools to offer seminars and practical experiences that will teach them how to process information by evaluating a problem and then finding a solution that works in a job environment. The BEST Institute is willing to offer three seminars per year on these emerging technologies across the region’s eleven counties’ high schools. Through demonstrating the latest technologies and even offering simplified lessons in these advanced business technologies, we can clearly demonstrate the need and opportunities in the cross-disciplinary area of the “Applied Technology Knowledge Worker.” This outreach also should be effective at developing a pipeline of motivated students into BEST and other technology education programming.

Next-generation research

The life-cycle of IT knowledge is extremely brief, and ongoing research is critical to ensuring that the BEST Institute (and IPFW) is positioned to instruct the IT population of EGR-3 on the next wave of technology applications.

Integrating the research function into the learning offered by the BEST Institute ensures that both BEST staff and students keep abreast of the latest developments in relevant technologies. As sufficient research is completed in new technology applications, the research will be

converted into learning curriculum. In the same vein, curriculum in outmoded technologies can be retired knowing that BEST has a research-driven curriculum development plan.

This research will be conducted by BEST Institute staff, directing research teams of three Lilly Foundation-funded student researchers and three independent study students per semester.

Funding request

The seed investment from SSI would help the BEST Institute build itself to be the Midwest's leading business-technology integration program – especially applicable in the world of technology-driven logistics.

Based upon past experience, sustainability will be achieved by a combination of:

- Sponsorship of BEST case studies in the corporate environment whereby the employer subsidizes the cost of the program through payment of a premium on the cost of equipment used in implementing solutions to the case study
- Student tuition either for course credit or pre-certification coursework (often receiving tuition reimbursement from their employer)
- Additional underwriting from Foundations who support the integration and applied learning aspects of education and its linkages to industries that will subsequently hire these students ("Brain Gain"). BEST currently hosts three student interns under this arrangement with the Lilly Foundation.

Revenue in the third and fourth years are made possible because of the grants and revenue made with the BEST institute and RF Global.

Item	Year 1 SSI Funded	Year 2	
		SSI Funded	Match
Software			
• Extended SAP license (1)	\$8,000	\$4,000	\$4,000
Equipment			
• Handheld RFID reader, RFID tags, RFID encoder, laptop PC, Powerpoint projector	\$10,000	\$4,000	\$4,000
Classroom Materials			
• Student training materials such as notebooks, photocopies	\$6,600	\$1,050	\$1,050
Travel			
• Road travel within NE Indiana for education/business outreach; occasional overnight travel	\$1,600	\$1,350	\$1,350
Salaries			
• Instructor & secretarial services	\$80,000	\$40,000	\$40,000
Other			
• Miscellaneous costs to cover unforeseen shortfalls in other categories	\$2,000	\$1,000	\$1,000
Speakers			
• Industry and regional expert speakers: travel, lodging, fees	\$15,000	\$7,500	\$7,500
Total	\$123,200	\$59,900	\$59,900
Total Two-Year Funding Request	\$183,100		

Action plan

Who will do what	Results expected from the action	How existing regional resources in the public and private sector will be reallocated and/or leveraged to carry out the planned activities
IPFW BEST Institute will offer 1 class/semester (2/year)	<ul style="list-style-type: none"> Exposure to concepts of Advanced Business Technology Solutions course 2006-2007: 40 students/class (80/year) = \$24,000 2007-2008: 60 students/class (120/year) = \$36,000 (Opening up the course to non-IPFW students) 	\$60,000 in new tuition monies
IPFW BEST Institute will host 3 independent study students per semester for advanced technology applications research with 3 Lilly Foundation-funded student researchers	<ul style="list-style-type: none"> Hands-on, applied learning with top hardware and software technologies 2006-2007: 3 students/semester (6/year) = \$7,200 2007-2008: 3 Lilly Foundation students/semester (6/year) = \$12,000 Summer 2007: 3 Lilly Foundation students = \$12,000 	\$10,800 in new tuition monies
2 outside industry cases studies/semester (4/year)	<ul style="list-style-type: none"> Applied learning Improved viability of local businesses through implementation of latest technology Companies to donate \$500 per case study 	\$4,000 in case study donations <ul style="list-style-type: none"> 2006-2007 funding: SSI 2007-2008 funding: SSI/Case study subsidization

RP Global donation to IPFW School of Business and Management Science Lab arising from work with SSI <ul style="list-style-type: none"> Assumes salary requirements are met by SSI 	Donations pursuant to agreement between IPFW and RP Global <ul style="list-style-type: none"> 2006-2007 = \$7,800 2007-2008 = \$9,600 	Total RF Global contribution is \$17,400
BEST Institute will conduct 3 high school outreach visits/year	Improved technology career awareness	<ul style="list-style-type: none"> 2006-2007 funding: SSI 2007-2008 funding: SSI/Case study subsidization
BEST Institute will develop 50% match for year 2	Implementation of long-term sustainability plan for continued advanced technology research and application education concept	Total Contribution is \$92,200

Timeline

Implementation dates	Responsible parties	Resource allocation
August 2006 – Course accreditation by IPFW	IPFW Accreditation Committee	None
Identical per semester (2 semesters/year)		
August/January – Advanced Business Technology Solutions course	<ul style="list-style-type: none"> Student population BEST Institute staff 	Tuition
August/January – 2 private industry case studies/semester	<ul style="list-style-type: none"> Student population BEST Institute staff Private industry members 	<ul style="list-style-type: none"> Tuition Anticipated stipends
August/January – Independent studies	<ul style="list-style-type: none"> 3 independent study students/semester BEST Institute staff Lilly Foundation student researchers 	Tuition
October, February and March – High School outreach	BEST Institute staff	<ul style="list-style-type: none"> Year 1 – SSI Year 2 – SSI + Case study stipends

Sustainability measures

- **Criteria:** Increasing the knowledge and understanding of our students on the integration of business functions within an organization
Metric(s): Number of students who successfully pass class; and number of students who completed an applied learning project as part of their certification
- **Criteria:** Preparing students with the requisite skills and knowledge required to work in integrated business organizations - in particular those that use technology to enable and improve industry competitiveness (e.g. ERP)
Metric(s): Employer survey in targeted industries to assess satisfaction with student-workers and number of employers who hire students as a result of the program
- **Criteria:** Enabling students to identify processes that have value added through the real-world practical application of internet and other business technology
Metric(s): Number of students who take a job in targeted industry; survey of students to determine what impact their certification had on their career choice; regular reports of next generation technology research

Response from outside agencies

"I have had the opportunity to participate in seminars hosted by Rob Palevich and also engage Rob in conversations regarding technology in the distribution and supply chain fields over the course of many years.

"Rob is a valuable resource for this community and Indiana University-Purdue University at Fort Wayne (IPFW) in terms of identifying new technologies and the applications of existing technology to these industries. I have sought out Rob for advice and discussion on a variety of topics, including RFID and other supply chain developments.

"In a prior position at Do it Best, I investigated Enterprise Resources Planning (ERP) products and wish that our company would have had someone like Rob available as a sounding board.

"While Rob has great value as a technical person, his best value to me and our company is his willingness to take what he knows and share it with others. Whether it is in a seminar hosted by IPFW and geared toward business people or Rob's efforts to take technology and supply chain education into the high schools, Rob is dedicated to sharing what he knows."

John Snider

Vice President, Retail Logistics Services, Do it Best Corp.

"During the 3Q-4Q 2005, the Business Enterprise Systems and Technology Institute assisted Superior Essex with an important project:

"WMS (Warehouse Management Systems): We asked the BEST Institute to evaluate the software market for the premiere Warehouse Management Systems available. The MBA class undertook an exhaustive review of the fit-form and functionality of the software on the market, contacted the provider and made recommendations. A formal presentation was made to select members of Superior Essex Management, for their consideration. This software is critical to optimizing our distribution efficiencies of 22 Distribution Centers, and also to maximize our Customer Service to the Marketplace.

"Superior Essex is a major, global company with over \$2.0MM in sales. We appreciate our relationship and the contributions made by the BEST Institute. We have found them to be on the "cutting edge" of technologies and their cooperative, pro-active attitude is refreshing and rewarding."

Pat McPeak

Director of Chain Management & Logistics, Superior Essex

Regional industry engagement


The BEST Institute has developed a number of strategic relationships with northeast Indiana companies like LH Industries (Allen Co.), Shuttleworth (Huntington Co.), 80/20 (Whitley Co.) and Tower Bank (Allen and Steuben Cos.). These companies are currently investing in the research and training capacity offered by the BEST Institute.

In addition, the following applications have the potential to involve student participants in a case-study environment:

- BEST has been selected by Crane Naval Surface Warfare Center to work with them on advanced logistics and RFID.
- Parkview Health has asked BEST to research their patient tracking and find a better solution, whether it be Wi-fi or RFID.
- Do-it Best Corp has asked BEST to implement a convention asset tracking system.
- PD George, a partner of Essex, wants BEST to set up the starting point of asset tracking using RFID.

BEST believes that they can sustain this progress and expand education and commercial outreach into years two, three and four given the momentum from SSI.

Summary

LEAD SOLUTION SPONSOR		
Business Enterprise Systems and Technology (BEST) Institute at Indiana University-Purdue University Fort Wayne		
SUPPORTING PARTNER		
RP Global Technologies Solution LLC		
LINE OF SIGHT		
<div></div>		
<p><u>Shortage:</u></p> <p>Computer systems analysts</p>	<p><u>Root Cause:</u></p> <ul style="list-style-type: none">Workers at lower skill levels find it difficult to upgrade their skills to qualify for more senior rolesNot enough practical experience with area employersHigh school graduates have insufficient academic preparation for the occupationPotential workers have unrealistic expectations of what it's like to work in this industry	<p><u>Solution:</u></p> <ul style="list-style-type: none">A selective, interdisciplinary study integrating the topics of Operations Management, Management Information Systems (MIS), Radio Frequency Identification (RFID) and MarketingIntegration of classroom/lab learning with real-world case studies that increase student learning and improve profit and productivity for case study clientsOngoing research and development into next-generation business hardware and software applications for future program development
SKILLS ADDRESSED		
<ul style="list-style-type: none">Computer and technology, including the ability to use softwareSystems thinkingCritical thinkingProblem solvingTrouble-shootingTeamworkCommunications	<ul style="list-style-type: none">Customer serviceListening skillsCreativity and imaginationComputer hardware knowledge – at an advanced levelComputer software knowledge – at an advanced levelNetworking knowledge	
REQUESTED FUNDING		
\$183,100; 50% match funding secured for year two		

RECOMMENDED SSI FUNDING CATEGORIES

- **WIA Optional (Allowable) #2:** Conduct research and demonstration
- **WIA Optional (Allowable) #3:** Establish & implement innovative incumbent worker training programs, which may include an employer loan program to assist in skills upgrading, and programs targeted to empowerment zones & enterprise communities
- **WIA Optional (Allowable) #5:** Implement innovative programs for displaced homemakers, and programs to increase the number of individuals trained for placement in nontraditional employment.
- **WIA Optional (Allowable) #6:** Carry out adult & dislocated worker employment & training activities as the state determines are necessary to assist local areas in carrying out local employment & training activities
- **State Skills 2016 (TAG) #1:** To improve manufacturing productivity levels in Indiana.
- **State Skills 2016 (TAG) #2:** To enable firms to become competitive by making workers more productive through training.
- **State Skills 2016 (TAG) #3:** To create a competitive economy by creating and retaining jobs.
- **State Skills 2016 (TAG) #4:** To encourage the increased training necessary because of an aging workforce.
- **State Skills 2016 (TAG) #5:** To avoid potential payment of unemployment compensation by providing workers with enhanced job skills.
- **Workforce Development Funds (Block Grant) #8:** To provide training for dislocated workers under IC 22-4-41. IC22-4.6-2 (5)
- **Workforce Development Funds (Block Grant) #9:** To provide training for workers who are at risk of becoming dislocated workers because of a lack of skills. IC22-4.1-6-2 (6)
- **Workforce Development Funds (Block Grant) #10:** To provide comprehensive job training & related services for economically disadvantaged, unemployed, & underemployed individuals, including recruitment, counseling, remedial education, vocational training, job development, job placement, & other appropriate services to enable each individual to secure & retain employment at the individual's maximum capacity. IC22-4.1-6-2 (7)

SUPPLY GENERATION POTENTIAL

Year	Undergraduate and MBA population	Community population	Independent Study students
2006-2007	40	-	6
2007-2008	40	20	6
2008-2009	40	20	6
2009-2010	40	20	6

Northeast Indiana TechNet

Solution description

Northeast Indiana is in the midst of a wrenching twenty-plus year change away from its auto industry-dependent manufacturing infrastructure. What it will become is an open question. As economic development officials work across EGR-3 to help our communities adjust to the changes forced by the global economy and the many drivers of Thomas Friedman's flat world, some businesses are making the necessary adjustments to global challenges and thus are succeeding as old-line business plans force many to step aside. We find that those businesses that are succeeding despite the challenges have demonstrated several common threads. They are:

- Investing smartly in information technology to achieve profit and productivity gains, always looking to implement the next technological edge
- Internalizing the concepts of continuous quality and process improvement, be it Total Quality Management, Lean Manufacturing, Six Sigma or another methodology
- Cherishing their knowledge-based employees as the key to their success and rewarding them with income incentives, ongoing training and constant intellectual stimulation

These companies are located in most EGR-3 communities, but their numbers are not yet significant. They represent the future of business in northeast Indiana, however, and they need to be supported in creative and imaginative ways. These innovative companies currently must go to larger commercial cities, which takes their focus away from the day-to-day operation and adds significant costs to their already tight budgets.

In order to support this critical knowledge base, the remedy they seek needs to be supportive for both the employers and their workforce. It must provide interactive content driven that is available to them when they need it, where they need it and at a no cost or low cost.

The TechNet SSI solution is to create an informative and interactive web portal that allows northeast Indiana professionals to log in and have access to all these resources and more. It has been widely recognized that within the US, the rise of small businesses is quickly outpacing the growth in large businesses. In northeast Indiana, that means we must be able to develop knowledge professionals who can support small businesses with a market focus in advanced manufacturing, healthcare, financial services, retail, construction, distribution, transportation, and education.

Although TechNet is being developed for SSI-targeted industries and occupations in the information technology base (and the SSI-targeted Computer Systems Analysts) within the northeast Indiana region, it can be expanded to education and development of CNC-MIMMs, Industrial Engineers and Registered Nurses. Through a flexible content delivery system based upon open source content management software, a customized knowledge base can be custom-delivered according to a user's region, industry, job classification and general interests. We believe the keys to creating a long term solution that can support the current and future needs are:

- A robust infrastructure delivered through an adaptable content management tool; and
- Engagement within the local community to identify motivated, knowledgeable resources to provide both engaging content of interest to our targeted occupations and ongoing sponsorship to ensure long-term sustainability of this solution concept.

This one-stop portal will include:

- **Home Page** that welcomes the visitor with regularly updated, user preference-defined website content, purpose and current news through an intuitive user interface.
- **Local Action Page** offering:
 - Local activities and events related to the targeted occupations and skill demands
 - Links to regional trade associations to support professional networking and skill development
 - Links to local information that assists users in researching SSI's targeted occupations
- **Career and Training Information** delivering:
 - Links to local universities' programming associated with the targeted occupational and skill goals of SSI. This would include the statewide WIA provider list for training services and consumer reporting systems.
 - Job openings for the job classifications and provides the ability for employers to seek out individuals, preferably through a dynamic link to the announced WorkOne job searching engine
 - Information regarding skill promotion initiatives and incentives
 - Information regarding scholarships, internships and other public/private partnerships
 - Address regulations and certifications that would be applicable
 - Access to regional technology pioneers, offering insight and inspiration on achieving success in work and life while working in the SSI-targeted occupations in EGR-3
 - Anecdotes reflecting on the need for lifelong learning and the direction of our flattening world (ie... the lion and the gazelle story from The World is Flat)
- **Dynamic Editorial Content** offering:
 - Information dissemination in the form a blog and podcasts to allow local groups, companies, agencies, etc to present information
 - Create regular, multimedia news content presenting interviews with local talent. Intended as a weekly offering, this could include course instructors discussing their programs, employers sharing their perspective on workforce skill needs, candidates presenting themselves and asking for feedback information, etc.
 - Include summaries, photos
 - RSS and XML feeds for syndicated web content related to:
 - Global perspective on regional issues through book reviews, news stories, etc.
 - Targeted industry news, custom-delivered to users who express interest in the subject matter through user preferences
- **User Content Pages** including:
 - Space for users to network in an open-ended manner by "dreaming of the next great invention"...and making the linkages to allow those innovations to take place in northeast Indiana
 - Moderated discussion forum related to:
 - Knowledge and technology-based topics of interest within EGR-3
 - Career outlook for SSI-targeted occupations and industries
 - Directed student-related content, where moderators stimulate learning through sponsored contests where students can input "ideas" based on a specific case study. (The student with the most complete & creative idea wins!)

- Inspiration and guidance through highlighting success stories that emphasize ways in which users and organizations individually addressed root cause issues to achieve skill and career development
- Wider knowledge dissemination: As the online community develops, moderators will encourage motivated participants to submit content for dynamic content delivery as described above
- **Advertising** by local companies/agencies to support ongoing non-WIA content
 - Optional expansion of **Advertising Section** to include national businesses and agencies, depending on local response toward match and sustainability

This solution represents the organizational framework of the portal more than exact content offerings. With SSI funding, Prairie Quest and its supporting partners will convene an advisory committee to determine the optimal means of designing and delivering content to:

- Achieve the core goals of promoting lifelong learning and skill development in SSI's target occupations through skill delivery via innovative methods
- Support a small population functioning regional community of knowledge professionals that is less vulnerable to external employment pressures and more likely to live and work in EGR-3
- Implement a plan to achieve sustainability through advertising and, if necessary, premium content pricing on some non-WIA areas of the portal

The TechNet solution will develop and grow content on a weekly basis, evolving into an electronic northeast Indiana "Skills-zine," which would be developed, modified and supported based on community needs and ultimately funded by advertising and long-term sponsorships.

The TechNet solution should be viewed as a pilot program for a potentially wider audience of Indiana knowledge workers. Combining the globally-applicable concepts of skill development and lifelong learning with a web-based content delivery mechanism that offers mass customization and an engaging, interactive format, this solution is easily scalable to the entire State of Indiana if the concept proves successful in EGR-3.

Funding request

Item	Year 1	Year 2	
	SSI Funded	SSI Funded	Match
Salary - Program Manager (0.3 FTE) w/ Tax/Ben Load	\$25,150	\$0	\$0
Salary – Web Developer (0.3 FTE) w/Tax/Ben Load	\$24,600	\$8,000	\$8,000
Salary – Content Manager (1.0 FTE) w/ Tax/Ben Load	\$60,000	\$20,000	\$20,000
Subtotal – Salary & Benefits	\$109,750	\$28,000	\$28,000
AME Service Support for Network	\$15,000	\$7,500	\$7,500
Hanapin Marketing	\$5,500	\$0	\$0
Marketing Service	\$25,000	\$0	\$0
Subtotal – Contracted Services	\$45,500	\$7,500	\$7,500
Travel Mileage to/from regional meetings	\$3,000	\$1,000	\$1,000
Subtotal – Travel	\$3,000	\$1,000	\$1,000
Equipment	\$30,000	\$0	\$0
T-1 Line Access	\$12,000	\$6,000	\$6,000
Printed Materials for sessions	\$2,000	\$0	\$0
Miscellaneous Office Supplies	\$1,200	\$0	\$0
Website Name/Hosting	\$200	\$0	\$0
Subtotal – Materials & Supplies	\$45,400	\$6,000	\$6,000
Grant Reporting Support (Rent, Phone, Copier, etc)	\$2,000	\$1,000	\$1,000
Subtotal – Overhead	\$2,000	\$1,000	\$1,000
Overhead Load for Staff	\$5,000	\$500	\$500
Auditing	\$1,500	\$250	\$250
Advisory Board Meeting Materials	\$800		
Subtotal – Other Expenses	\$7,300	\$750	\$750
Total	\$212,950	\$44,250	\$44,250
Total Two-Year Funding Request	\$257,200		

Action plan

Who will do what	Results expected from the action	How existing regional resources in public & private sector will be reallocated and/or leveraged?
At this point, Prairie Quest Consulting will take responsibility for ensuring that all aspects of this project are completed. As the solution's Advisory Board forms and a targeted plan of work develops, it is anticipated that some of these responsibilities will be assumed by other parties under Prairie Quest's supervision.		
Establish Infrastructure	<ul style="list-style-type: none"> Internet hosting server and configuration ready for development Fort Wayne IT provider will provide equipment and hosting support. 	SSI funding, augmented and eventually replaced by advertising and other fee-based revenue
Staff Content Developer Position	<ul style="list-style-type: none"> Hire Content Manager New position at Prairie Quest 	
Develop Marketing Materials for distribution	<ul style="list-style-type: none"> Literature to businesses, students and job agencies to increase visibility A local marketing firm will develop a logo and materials specific. 	
Develop Static Content	<ul style="list-style-type: none"> Base Website information researched, approved and posted Local universities and businesses will be contacted for information regarding content specific to each job skill 	
Establish E-ad's and analyze content to maximize advertising revenue	<ul style="list-style-type: none"> Enhanced content with focused advertising based on user clicks Engagement of an Indiana based company who focuses on creating revenue based on web content. 	

Obtain sponsorships and advertising for website	<ul style="list-style-type: none"> • Ongoing revenue to support non-WIA content development • Local businesses and associations will be approached for sponsorship and/or advertising. 	
Develop weekly e-zine materials	<ul style="list-style-type: none"> • Updated weekly content based on each skill • Regional business leaders, universities, trade associations, and students will be interviewed to provide video and audio interviews 	
Register Users	<ul style="list-style-type: none"> • Email listing of candidates and users • This will be used for statistical information and could be mined for candidates by local providers 	
Update content	<ul style="list-style-type: none"> • Weekly updates • Content to be provided by local users, businesses, trade associations, not for profits and interested parties 	

Timeline

The following timeline represents a high level project plan with the grant award. During the contract negotiation period, a completed project plan with a communications plan, stakeholder identification matrix, infrastructure testing plan and risk assessment/abatement plan will be developed.

Implementation dates	Responsible parties	Resource allocation
10/30/06	PQC/AME	Infrastructure Setup
7/30/06	PQC	Staffing Position
8/15/06	PQC	Metrics Formalized
8/30/06	PQC/ Marketing Firm	Create marketing materials
9/30/06	PQC	Finalize static content
10/1/06	PQC	Static content released to public and user registration would begin
10/30/06	PQC/ Hanapin Marketing	E-ad review complete and revenue generation begins
11/30/06	PQC	First e-zine materials generated and sent out
12/1/06	PQC	Updated content would be released to public and formal press release would be distributed to regional media to announce release.
1/1/07	PQC	Establish sponsorship program and market
Weekly after 11/30/06	PQC	Weekly updated content
Quarterly	PQC	Review and update statistics
Bi-annually	PQC	Perform surveys of local businesses and agencies to trend usage and value

Sustainability measures

The value to a project such as this is ensuring that the content is a value not only to the users but to the businesses, educational institutions and trade associations who would support the project from both a content and financial perspective. Therefore, it would be critical to obtain feedback from those agencies to ensure ongoing support.

- **Criteria:** Effectiveness of the project plan in achieving stated goals
Metric: Earned Value Metrics (baseline vs actual), Budget (Forecast vs Actual)
- **Criteria:** Level of user participation
Metric: Registered Users, Volume Counts, Page Clicks, Repeat Visitors, Survey Results
- **Criteria:** Level of advertiser support
Metric: Advertising revenue, Survey Results, Content Support
- **Criteria:** Level of higher education support
Metric: Financial Support, Survey Results, Content Support
- **Criteria:** Level of trade association support
Metric: Financial Support. Survey Results, Content Support

Response from outside agencies

“On behalf of Techpoint, Indiana’s statewide technology trade group, it is my pleasure to support Prairie Quest Consulting’s proposal to create a web portal focused on several key technology-driven careers. Techpoint seeks to transform Indiana into a recognized technology leader. I believe that this portal will help accomplish that goal through enhancing both education and connections among technology workers.

“Techpoint’s Northeast Chapter will be our organization’s primary link with this project at first. However, we believe that the site will have growing value throughout Indiana and look forward to working with the site as it expands.”

**Mike Fritsch, Chairman, Techpoint
(Founder, NE Indiana Chapter)**

“This is a great idea. General Electric has a large IT presence in Ft. Wayne and a vehicle such as this would be a great tool for best practice sharing, networking, and a natural outcome--qualified candidates. You have my full endorsement.”

**David Bryson
HR Manager, General Electric**

“The Ottenweller Company, Inc. would like to support creation of a website/portal for IT peer discussion, training and information. Mr. Michael Busche, our IT Manager, states that he feels this would be a very valuable tool and resource for researching solutions to special challenges that are presented to him in his position. Thank you for offering information regarding this initiative. Please keep us posted on any progress, or any assistance we can offer.”

**Joyce Spahr
HR Director, Ottenweller Co.**

"It is my pleasure to provide this letter of support to Prairie Quest for its workforce development portal. I approach this from three perspectives:

- **General Economic Development**

"Northeast Indiana is home to many small companies with information technology functions that have grown up haphazardly. These are companies in manufacturing, service and retail sectors, where "the IT guy" is often simply the employee who has shown some interest in computers, and perhaps taken a course or two. The management of the business is not only unable to provide guidance to the employee's professional development, but management often has a very limited vision of what IT can do to make the business more profitable. Training in such an environment is too often viewed as a cost, both in terms of dollars spent on the class itself as well as the employee's time away from keeping the e-mail running. Add to that the geographic dispersion of many of these companies and you have a difficult situation, both for the employees and their employers.

"Your portal would help address that situation by creating peer networks and cost-effective asynchronous training/certification opportunities. I am confident that the site would be valuable for our region's larger IT employers as well, particularly in recruiting employees from other regions who can be directed to the site to get a feel for the technology community in northeast Indiana. Employers and employees would both benefit from job search functions.

- **FourthWave LLC**

"My employer is a software developer. We employ one network administrator who serves triple duty as IT manager for several related organizations and provides technical support for sales efforts. Although very talented, he does not have time to attend all of the training and professional development programs that he would like, and that would be beneficial to our company. This portal would be of great benefit to him and to our company. We would use this portal to advertise for job openings as well. We would be happy to provide content to the site.

- **Techpoint Northeast Chapter**

"As an officer in the Northeast Chapter of Techpoint, Indiana's statewide technology advocacy and membership organization, I am very excited that you are taking on this important project. We will assist you in marketing the site to our members and to others in the region who would be interested, through e-mails, announcements at meetings, etc. We believe that this will help spread the word and speed up awareness of the site."

Karen Goldner

Vice President-Special Projects, FourthWave LLC

"I support the initiative to provide training/information to workers via a web portal. I believe that having centralized locations for information sources (directly posted information and/or links to other sites of information) would help a lot of businesses/employers/employees in our state. A site that would help match up providers of solutions and prospective employees with businesses in need seems to something that could benefit our economy."

Tim Werling

Independent Computer Applications Consultant

“My company has found multiple companies interested in IT training and has asked for us to train them as a service. Unfortunately, this is a high cost program for us to keep our staff trained well enough to train others, requires a huge outlay for the customer to bring our trainer to their site for multiple days (hotel/ food/ travel costs and our markup), and oftentimes takes their people out of their areas of profitability for the company. Many companies would much rather have an online or downloadable forum that their employees could access and use at their convenience, often in short periods. With that said, my company has decided to not offer any IT training to my customers anymore. We will train our staff to do their jobs only, and not train others.

“I know you are looking to develop a program to offer a portal to train people and allow others to learn from each other. I can highly endorse this idea, as I can attest professionally that the method we have offered until recently has fallen off in popularity and in profitability. I know that my company uses e-learning training modules from Cisco and Hp that can either be accessed through a web browser or a mobile device. Of course, this is often product line specific. But it is a successful training tool.

“This methodology is cost efficient, allows people to learn at their own pace, they can review things at a different time if they are not able to understand it at that time, and keeps people profitable for the company. The cost is affordable. Keeping people in northeast Indiana trained in the latest developments can also help our strained workforce retain jobs in an area with an excellent cost of living. In a time when many northeast Indiana manufacturing facilities are closing, training people locally for technical service positions seems the only answer for our economy. We need to find a way to get an edge in Indiana. I think this may be a cost effective answer to training in northeast Indiana.”

Dan Fry

Account Director, Advanced Microelectronics, Inc.

“Prairie Quest Consulting is one of the most impressive firms I have ever dealt with. Stacey Smith, PQC's founder and President, has a vision that is amazing. Getting them involved in this program would guarantee quality.”

M. Randall Spencer, Esq.

Partner, Carson Boxberger LLP

“I am pleased to offer my support for the proposal Prairie Quest Consulting has submitted to the Northeast Indiana Workforce Investment Board. Creating a website/portal where individuals, companies and organizations can find important information and resources will be extremely helpful to employees and employers alike.

“I am currently working on an Economic Diversity Initiative for the United Way of Allen County and the Fort Wayne Urban League. One of our goals is helping minority- and women-owned businesses develop growth strategies. Maximizing their IT capabilities is one of the strategies that must be explored.

“I look forward to a favorable review of this proposal and working to foster business growth across northeast Indiana.”

Marvin B. Austin

Legacy Enterprises, Inc.

"I support this initiative and believe the collaboration web portal proposed by Prairie Quest sounds like a great idea and another way to develop our community."

Nancy Jordan, CPA CISA

Second Vice President & Controller, Lincoln Financial Advisors

"As a lifetime IT person who has spent 35 years working for two very large corporations, I do agree this initiative and the resulting website would provide an innovative way for IT professionals, regardless of the size of their current IT organization, to network with one another. This opportunity to network beyond their own organization provides another vehicle for them to equip themselves for success within their own organization or even an expanded role as they grow professionally and move into a more challenging position with a different organization."

Jim Gutoskey, IBM PDM

Aetna Engagement, Application Services - Business Consulting Services

"Prairie Quest Consulting, a local, Fort Wayne, IN based IT consulting company, is preparing a proposal to the Workforce Investment Board requesting funds for the creation of a website/portal that would be usable for all of these occupations, but would have special relevance for the IT group.

"The website/portal would be a place IT people could go for peer discussion (i.e., "has anyone had this problem? What did you do to fix it?"), asynchronous training and links to certification programs, information about area companies/job listings, industry news, etc.

"I believe that this project can really help improve the quality of the Indiana IT workforce, particularly for non-IT companies where the IT "department" consists of one person hired primarily because he (or she, but usually he) seemed to have an aptitude for computers, regardless of formal education.

"In many of these companies (manufacturing and others), IT is underutilized as a business tool because of the lack of understanding/knowledge as to how IT can be used to solve problems. All too often, it is seen as a cost center (i.e., "my e-mail isn't working!") but not as a proactive part of the solution to business challenges.

"We believe that part of the way to address this is to provide IT staff with more information about best practices which they will not typically be able to find on their own."

Lori F. Wright

President, Meetings Designed Wright, LLC

"I am writing a letter of support for your Strategic Skills Initiative that would focus on Computer Systems Annalists.

"Our organization, Partners in Contracting Corp., assists small companies to bid on federal contracts. All of the federal bids are posted on line many are submitted on line and much of the reporting is also done on line. In fact the federal government and particularly the defense department are moving as much of the contract process to on line as they can. Small businesses need employees with strong IT skills in order to effectively compete for federal contracts. It has been our experience that many small businesses in Indiana do not have employees with strong IT skills and consequently do not take advantage of the opportunities to compete for federal contracts.

"We strongly support your program and will do what ever we can to assist you."

Dennis H. Terry


Partners In Contracting Corp.

Regional industry engagement

As noted in the letters of support noted in section 3.7.6, the regional industry support towards this project suggests a much wider level of interest in engaging in this project than time allowed in developing a formal engagement plan.

Organization and Information	Role
Northeast Indiana Workforce Improvement Board	Provide feedback on implications and current needs of local community
University Representatives from IPFW, Ivy Tech, Indiana Tech, St. Francis, and Taylor University	Provide content support and feedback on education and training specific details for each job skill.
Advisory Board	An advisory board made up of users, businesses, trade associations and high education to support content recommendations, sponsorship leads and future funding suggestions

Summary

LEAD SOLUTION SPONSOR		
Prairie Quest Consulting		
SUPPORTING PARTNERS		
TechPoint, Advanced Micro Electronics, Hanapin Marketing		
LINE OF SIGHT		
		
<u>Shortage:</u>	<u>Root Cause:</u>	<u>Solution:</u>
<ul style="list-style-type: none"> • Computer systems analyst • Industrial Engineer • CNC-MIMM • Registered nurse 	<ul style="list-style-type: none"> • Workers feel there is no opportunity to advance from their present position • Workers at lower skill levels find it difficult to upgrade their skills to qualify for more senior roles • Potential workers have unrealistic expectations of what it's like to work in this industry • School guidance counselors have little understanding of the opportunities in this occupation • Difficulty in attracting engineers and their spouses to this area • (RNs) Stress or burnout are driving registered nurses from this occupation in my area 	<ul style="list-style-type: none"> • A cross-disciplinary, regional Internet portal help existing and potential workers in SSI's target occupations learn and grow in their occupations through formal and informal means. • The portal will offer listings of WIA-eligible training providers and links to their web sites or other contact information. • The portal will be designed specifically to address the needs of a dispersed, remote audience and support their individual professional development issues and needs. Content will be developed to increase training awareness and availability, offer relevant communications and reset expectations for EGR-3's professionals. The portal will also provide information for members of the emerging workforce who are considering careers in the target professions within the region. • The solution also proposes integration of the available WorkOne/Monster IT positions with this portal, allowing regional candidates readier access to EGR-3's available positions. Online access to other WorkOne functions likely could be integrated as well. • Potential workers can also acclimate themselves to what employers require in EGR-3 through community forum dialogue and directed content. • The web portal's capacity to provide a communication forum has the potential to assist with reducing workplace stress and burnout through collective problem-solving.

REQUESTED FUNDING

\$257,200; 50% match secured for year two

RECOMMENDED SSI FUNDING CATEGORIES

- **WIA Required (Mandatory) #1:** Disseminate the statewide eligible training provider list/consumer reporting system. Information identifying eligible providers of on-the-job training & customized training. Performance & program cost information about these providers, as described in 20 CFR 663.540. A list of eligible providers of youth activities as described in WIA section 123.
- **WIA Required (Mandatory) #7:** Assisting in the establishment and operation of the One-Stop delivery systems, in accordance with the strategy described in the state workforce investment plan, reference WIA section 112(b)(14).
- **WIA Optional (Allowable) #4:** Provide support to local areas for the identification of eligible training providers

Nursing Clinical Placement Clearinghouse

Solution description

Registered nursing shortage estimates in EGR-3 indicate a strong level of need for registered nurses at least through 2012. Public awareness of the nursing shortage is acute through the efforts of organizations like the American Association of Colleges of Nursing.²⁰ SSI research demonstrates that EGR-3's emerging workforce views the health occupations as a top career interest area.²¹ Yet students who want to enter these professions are stymied by a lack of available class seats.

Using Ivy Tech Community College Northeast's (ITCC) Associate of Science in Nursing program as an example, the school accepts one cohort of thirty students each Fall, along with ten Licensed Practical Nurses that are admitted into the second year of the two-year program with advanced standing. There are in excess of 300 applicants *all meeting the entrance requirements* for this limited number of seats. Similarly, the Practical Nursing program admits seventy students in the Spring and Fall semesters, with anywhere from 80 to 130 *qualified* applicants who are turned away. The limiting factor in both instances is the limited number of clinical sites for the experiential requirement of the training.

ITCC's experience is broadly shared throughout EGR-3's nursing schools. While a high level of competition for available seats in a market that is saturated with nurses makes sense, rejection rates of qualified applicants as large as 90 percent does not when the market is experiencing an acute shortage of nursing professionals. A bottleneck exists around the lack of sufficient numbers of clinical placement opportunities.

In an interesting twist, EGR-3 hospitals currently give precious clinical placement space to non-EGR-3 nursing school students as well as to proprietary institutions. Historically, these students use EGR-3 for their clinical experience and then return to other communities upon completion, doing nothing to alleviate the shortage of RNs in EGR-3. Increasing clinical placement in local programs appears more logical when reviewing the data. Indiana University-Purdue University Fort Wayne (IPFW) reports that 35 percent of their students stay in northeast Indiana. University of Saint Francis (USF) information points to 84 percent of nursing graduates choosing to work in EGR-3. ITCC reports 93 percent of their graduates remain in the region.

Scheduling clinical placements has devolved into a competitive "first come, first served" scenario. Another complicating factor for practical nursing programs is the increased demand for registered nurses resulting in those programs receiving preferential treatment, sometimes to the exclusion of practical nursing students in essential areas. All the communities of interest have realized that the current situation is untenable, and local dialogue has begun in order to address clinical placement issues.

Realistically, the dialogue will create another temporary solution. A systemic shortage issue demands a systemic solution. Economic Growth Region 3 requests Strategic Skills Initiative support to create that systemic solution as described below.

²⁰ Examples of the public awareness campaigns conducted by this organization are available at <http://www.aacn.nche.edu/Media/shortageresource.htm>.

²¹ "Career Awareness and Access," Digging Deep: The Northeast Indiana Strategic Skills Initiative Root Cause Summary Report, 28 Dec. 2005, p. 14.

Nursing clinical placement clearinghouse

Ivy Tech Community College intends to spearhead the creation of a full-time position to objectively seek out and subsequently schedule clinical rotations in EGR-3. This position is hosted by an organization with no inherent bias toward any supply or demand participant.²²

New nursing programs, like Huntington University's nursing program, which is due to launch in 2007, will assist in alleviating the shortage. Unless coordinated properly, they will add to the bottleneck of clinical placements. It is imperative that the programs align with the clinical site hosts and ensure that all nursing programs in EGR-3 operate at peak capacity.

Nursing schools and area health care institutions will share the cost of the coordinator position as SSI funding tapers off. Shared responsibility is essential, eliminating any fiscal allegiance and insuring fair and objective distribution of clinical placements. The coordinator will be accountable to an oversight committee consisting of representatives from all communities of interest – supply and demand.

Existing available clinical placements are not optimally utilized. Few clinical experiences are scheduled for evening or night time hours, and weekends are not utilized at all. Outlying and rural sites are under utilized. Quantifying the number of additional seats this approach would add to our nursing programs will take place through surveying all potential clinical sites – an early deliverable from this new position.²³

Additionally, most new graduates do not secure full time day shift positions; the majority begins their health care career on evening or night shifts, many times in a smaller, outlying location. Exclusively day shift clinical experiences, with weekends and holidays off, are not an accurate portrayal of the working environment. An impartial clinical clearinghouse will ensure that all nursing students are exposed to the many different working environments within which registered nurses function.²⁴

An ancillary consideration of this SSI solution means that nursing schools will utilize more than one clinical site for a given group of students in one semester. The current method of completing required orientations to the clinical sites precludes this possibility. Moving orientation to an on line or pre-recorded format such as DVD would eliminate this obstacle and allow each individual site to customize content. The SSI funding request contemplates this new orientation procedure.²⁵

The initiative has already been discussed with representatives from Parkview Health (six hospitals) and Lutheran Health Network (5 hospitals). Dr. Mark Keen, ITCC Chancellor, is in discussions with Win Rood, Executive Director at the Fort Wayne Medical Society regarding its potential role in this project. Subsequent meetings to further develop the concept are scheduled.

All outside agencies with a stake in this initiative have not been contacted at this writing. It is **not** our intention to wait and see if this project is funded. While the proposal is under review we will be actively seeking support, both fiscal and philosophical, from regional and outlying health

²² Root cause no. 4: Not enough practical experience with area employers

²³ Ibid

²⁴ Root cause no. 5: Potential workers have unrealistic expectations of what it's like to work in this industry

²⁵ Ibid

care providing institutions as well as educational institutions with nursing programs. This proposal is predicated upon sweeping systemic changes that are urgently needed.

Conservatively, we would target an increase in nurse supply capacity of at least thirty more local graduates annually.

Nurse clinical instructor training

With the expansion of nursing clinical programming into new hours of the day and new days of the week, as well as to new locations, will create a need for nurse clinical supervisors. Nurse clinical instructors require training, both for professional reasons and to keep stress levels down within a larger nursing staff that likely has little time to attend to the applied learning needs of the student population.²⁶

ITCC proposes to conduct a market analysis of the projected demand for nurse clinical instructor training under the expanded clinical environment fostered by the creation of a clinical clearinghouse. Upon completing the assessment, it will offer a streamlined course of continuing education study for nurses who will act as nurse clinical instructors at their respective institutions. Not only will this have a functional purpose for their employers, but the nurses taking this coursework will receive continuing education credit toward the maintenance of their licenses. This program of study will be funded in part by tuition reimbursement monies available from their employers.

²⁶ Root cause no. 2: Stress and/or burnout are driving registered nurses from this occupation in my area

Funding request

Item	Year 1 SSI Funded	Year 2	
		SSI Funded	Match
Coordinator Salary/Benefits	\$56,000	\$30,440	\$25,560
Travel	\$2,000	-	\$2,000
Office, 180 sq ft • Includes maintenance fees, overhead, phone, internet	\$2,880	-	\$2,880
Furniture • Includes: desk, table, chair, file cabinet	\$1,300	-	-
Supplies	\$750	\$375	\$375
Computer Equipment • State of the art; includes peripherals such as printer, mouse, scanner, etc.	\$2,300	-	-
Orientation Delivery • Development of online site specific orientation • Production of DVD with orientation links and information	\$5,000	-	-
Instructor Curriculum Development • Nursing faculty time to expand existing instructor orientation, training and mentoring process already utilized	\$3,000	-	-
Total	\$73,230	\$30,815	\$30,815
Total Two-Year Funding Request	\$104,045		

Action plan

Who will do what	Results expected from the action	How existing regional resources in the public and private sector will be reallocated and/or leveraged to carry out the planned activities
Representatives from ITCC, IPFW, USF convene to begin organization of clinical placement clearinghouse	<ul style="list-style-type: none"> Determine composition of Management board Other local educational institutions are invited to participate (Indiana Wesleyan, Huntington University) 	<p>In all instances:</p> <ul style="list-style-type: none"> Donated time from respective partners Clinical coordinator – Industry partners will offer a 50% match in year 2; 100% in subsequent years
Management board	<ul style="list-style-type: none"> Determines if 3rd party coordinator can be engaged, or if new organization is needed Develops clear lines of accountability and (if needed) bylaws Invites hospital administrators to participate Develops job description for clinical coordinator Advertises position Hires clinical coordinator 	
Clinical coordinator	<ul style="list-style-type: none"> Roles as determined in timeline to ensure proper coordination of clinical placement program between nursing schools and clinical hosts 	

Timeline

Implementation dates	Responsible parties	Resource allocation
June 1, 2006 <ul style="list-style-type: none"> Board of directors convened 	ITCC, IPFW and USF designees	Donated time from respective partners
July 1, 2006 <ul style="list-style-type: none"> Hiring Process initiated 	Management board and/or 3 rd Party coordinator	Donated time from respective partners
August 1, 2006 <ul style="list-style-type: none"> Survey of potential clinical sites to determine January 1, 2007 availability and begin work on scheduling 	Clinical Coordinator	Funds requested in proposal and donated time from respective partners
August 1, 2006 <ul style="list-style-type: none"> Clinical instructor curriculum developed 	ITCC nursing faculty	<ul style="list-style-type: none"> \$3,000 requested in proposal Additional time as in-kind for ITCC as well as any travel involved in marketing
August 1, 2006 <ul style="list-style-type: none"> Orientation DVD/online development 	Industry partners and ITCC web master and media technicians along with nursing faculty	<ul style="list-style-type: none"> \$5,000 requested in proposal specifically for direct cost of producing DVD's and creating web site for online delivery ITCC personnel time - in-kind
January 1, 2007 – May 7, 2007 <ul style="list-style-type: none"> Clinical instructor training begins 	ITCC Nursing program	<ul style="list-style-type: none"> Tuition revenue from participating clinical sites
August 2007 <ul style="list-style-type: none"> Revised scheduling implemented; Instructor training ongoing 	<ul style="list-style-type: none"> Clinical Coordinator Participating EGR-3 Schools of Nursing Participating health institutions 	Funds requested in proposal and donated time from respective partners
May 2008 <ul style="list-style-type: none"> Evaluation of Academic Year 1 and revision as indicated 	<ul style="list-style-type: none"> Clinical Coordinator Management board 	Funds requested in proposal and donated time from respective partners
June 1, 2008 <ul style="list-style-type: none"> Final project report and evaluation 	<ul style="list-style-type: none"> Clinical Coordinator Management board 	Funds requested in proposal and donated time from respective partners

Sustainability measures

- **Criteria:** Delivery of current and potential nurse clinical training capacity data for incumbent sites to Management board by August 1, 2006. Potential training capacity could include incorporating additional shifts and weekend hours for clinical groups.

Metric: Number of new clinical placement slots added (Global target is adding 10 percent to current capacity)
- **Criteria:** Identification and recruitment of new clinical sites. Delivery of new clinical sites with training capacity to Management board by August 1, 2007.

Metric: Number of new clinical sites added

Metric: Number of new clinical placement slots added
- **Criteria:** Completion of nurse clinical instructor curriculum by August 1, 2006; Completion of necessary nurse clinical instructor program delivery by January 1, 2007 for incumbent sites

Metric: Number of clinical instructors completing the curriculum

Criteria: Completion of necessary nurse clinical instructor program delivery by January 1, 2008 for prospective new sites

Metric: Number of clinical instructors completing the curriculum
- **Criteria:** Completion of orientation DVD and delivery to new nurse clinical students by August 1, 2006.

Metric: Number of students completing new orientation method (Target is 100%)

Metric: Number of clinic hours preserved through moving orientation to alternate delivery methods
- **Criteria:** Contribution toward decrease in the global shortage of registered nurses in EGR-3

Metric: Number of RN vacancies decreased in partner institutions

Metric: Number of partner program graduates employed locally

Response from outside agencies

"I checked with my Dean of Health Sciences, Dr. Nancy Gillespie, and she is supportive of the overall project. She had been meeting with Carol Sternberger from IPFW and Paula Bostwick from Ivy Tech to discuss the feasibility of a clinical coordinator/Recruiter for the area schools. I assume that this is the same concept you have included in your proposal for the SSI funding. Given that assumption, USF agrees that a neutral outside scheduler/recruiter could assist us to improve the overall clinical situation for nursing programs in the Fort Wayne area."

Dr. Marcia Sauter

Vice President for Academic Affairs, University of Saint Francis

We are supportive of the rationale and believe that such an arrangement could be helpful to institutions needing placements where there is not an affiliated health provider. Because we are just initiating a nursing program, we don't have experience yet in establishing alliances so we aren't able to address the particular merits of the proposed arrangement.

Norris Friesen, PhD


Vice President & Dean of the University, Huntington University

Regional industry engagement

As the solution description describes, the many partners in the nurse clinical delivery system have been engaged in this dialogue for years. The leadership of these organizations follow:

Organization and Information	Role
Ivy Tech Community College Northeast	
Mark A. Keen, PhD	• Chancellor
Candace Schladenhauffen, MS, RRT-NPS, RPFT	• Health Sciences Division Chair
Paula Bostwick, MSN, RN	• Program Chair, ASN
Denise Jordan, MSN, RN	• Program Chair, PNU
Indiana University-Purdue University Fort Wayne	
Carol Sternberger, PhD, RNC	• Nursing Department Chair
Susan Hannah, PhD	• Vice Chancellor for Academic Affairs
University of Saint Francis	
Nancy Gillespie, PhD, RN	• Dean of Health Sciences • Nursing Department Chair
Huntington University	
Norris Friesen, PhD,	• Vice President & Dean of the University

Summary

LEAD SOLUTION SPONSOR		
Ivy Tech Community College		
SUPPORTING PARTNERS		
Indiana University-Purdue University Fort Wayne, University of Saint Francis, Huntington University		
LINE OF SIGHT		
		
<p><u>Shortage:</u></p> <p>Registered nurses</p>	<p><u>Root Cause:</u></p> <ul style="list-style-type: none"> Capacity of training institutions is inadequate to prepare workers for this occupation Not enough practical experience for students with area employers Potential workers have unrealistic expectations of what it's like to work in this industry 	<p><u>Solution:</u></p> <ul style="list-style-type: none"> Establish a clearinghouse with full time support to coordinate clinical placements for nursing students from nursing programs. Creation of a full-time, third-party position to objectively seek out and subsequently schedule all nursing school clinical rotations in EGR-3, mitigating one of the major bottlenecks in registered nursing production in Northeast Indiana by: <ul style="list-style-type: none"> Aligning current clinicals to achieve maximum utilization Developing new sources of clinical learning experiences Addressing non-Indiana residents and students taking clinical rotation space away from Indiana residents and students Development and implementation of a nursing clinical instructor curriculum to Facilitate the increase in numbers of clinical sites in EGR-3
SKILLS ADDRESSED		
<ul style="list-style-type: none"> Basic clinical skills from practical training Flexibility Accountability Professionalism Compassion Organizational skills Time management Computer & technology 		<ul style="list-style-type: none"> Critical thinking Problem-solving Trouble-shooting Teamwork Communications Customer service Listening skills

REQUESTED FUNDING

\$104,045; 50% match funding secured for year two

RECOMMENDED SSI FUNDING CATEGORIES

- **WIA Optional (Allowed) #2:** Conduct research and demonstration
- **WIA Optional (Allowed) #3:** Establish & implement innovative incumbent worker training programs, which may include an employer loan program to assist in skills upgrading, and programs targeted to empowerment zones & enterprise communities
- **WIA Optional (Allowed) #6:** Carry out adult & dislocated worker employment & training activities as the state determines are necessary to assist local areas in carrying out local employment & training activities
- **State Skills 2016 (TAG) #2:** To enable firms to become competitive by making workers more productive through training.
- **State Skills 2016 (TAG) #3:** To create a competitive economy by creating and retaining jobs.
- **State Skills 2016 (TAG) #4:** To encourage the increased training necessary because of an aging workforce.

SUPPLY GENERATION POTENTIAL

Year	Hospital-based clinical rotations	Nursing home/long-term care clinical rotations	Other clinical rotations
2006	-	-	-
2007	30	-	-
2008	30	TBD	TBD
2009	30	TBD	TBD

Logistics Training Development

Solution Description

The I-69 freeway corridor is perhaps the most significant EGR-3 infrastructure advantage available to prospective business investors. Planned expansion of I-69 in southern Indiana only makes northeast Indiana's location and infrastructure more advantageous for transportation, distribution and logistics industry (TD&L) growth.

EGR-3's SSI-related research and independent Marion-Grant County Chamber of Commerce (MGCCC) industry interviews reveal a disparity in technologies and skilled positions between older distribution centers and those launched today. Modern distributions centers, such as the under-construction Dollar General and Wal-Mart facilities in Grant County, represent the new benchmark. Strong backs and conveyer systems will always play a role on distribution center floors, but sophisticated logistics and inventory management systems offer strategic advantages for today's distribution centers.

New distribution centers will continue to locate along the I-69 corridor; existing TD&L centers will need to modernize to stay competitive. This technology-driven TD&L "arms race" portends a dynamic demand for technically trained personnel in the very near future. In fact, both Dollar General and Wal-Mart will initially transplant key skilled personnel from other areas rather than employing EGR-3 residents in these critical (and comparatively lucrative) occupations. According to regional industry sources, the targeted positions in TD&L pay \$35,000 - \$45,000 per year in EGR-3 – higher than EGR-3's median wage.

EGR-3's SSI leadership had hoped to develop a SSI solution related specifically to TD&L, reluctantly determining that the root causes related to shortages of long-haul truck driver lay beyond the purview of a regional solution. The Council of Supply Chain Management Professionals' Careers in Logistics indicated emerging demand in the fields of Logistics Analyst and Logistics Engineer, both of which require the same core skill sets as the Computer Systems Analyst and Industrial Engineer occupations.²⁷ MGCCC research unearthed this skill shortage within the larger occupations; EGR-3's SSI leadership endorses their effort and requests SSI funding for MGCCC's collaborative effort to bring existing logistics curriculum to EGR-3.

Skills shortage

Supply and demand focus groups related to the targeted occupations revealed consensus on the following additional required skills for global competitiveness:

Computer Systems Analyst

- Self-reliance and self-motivation
- Personal computer hardware knowledge
- Any possible computer hardware or software certifications
- Detailed computer software application knowledge, especially with Microsoft Windows, Word, Excel and Access
- Networking knowledge

By comparison, Careers in Logistics indicates the Analyst occupation requiring the following skills, which are nearly identical to the Computer systems analyst-specific skills combined with basic workplace literacy skills befitting an entry-level career track position:

²⁷ Council of Supply Chain Management Professionals d/b/a Council of Logistics Management. "Analyst" and "Logistics Engineer," Careers in Logistics, 22 Oct. 2001, p. 12, 17.

Strong quantitative and analytical skills; familiar with logistics and production planning concepts (e.g., just-in-time, materials requirement planning); broad range of computer skills—database, spreadsheet, statistics applications, and logistics software packages; understand contracts and tariffs; self-directed; ability to communicate findings, make recommendations, and facilitate change; comfortable working with individuals at all organizational levels; project management skills.²⁸

Regarding Industrial engineers, the following skill sets emerged from SSI focus groups:

Industrial Engineer	
<ul style="list-style-type: none"> • Creativity and imagination • Leadership skills • Spatial thinking 	<ul style="list-style-type: none"> • Computer Aided Design (CAD) software experience (less applicable in a TD&L environment) • Time management

Careers in Logistics suggests the following skills are needed to be a Logistics Engineer (which are nearly identical to EGR-3 SSI's Industrial Engineer):

Project management skills; knowledge of computer-based design and analysis tools—route optimization, simulation, work measurement, spreadsheet, and database analysis; strong technical writing skills—proposal development and performance analysis; investigative nature; understand costing and pricing analysis; process oriented.²⁹

Careers in Logistics also lists the title “Industrial Engineer” as an alternative job title for their “Logistics Engineer” occupation.

Organization, coordination and marketing

This SSI solution intends to create a pool of technically proficient logistics systems management personnel in the region to fill the existing and near future demands of the industry. In addition, it will create systems that facilitate ongoing, two-way dialogue between the TD&L industry and its public sector partners to ensure the long-term growth of TD&L in EGR-3.

MGCCC's primary goal is to coordinate and market the regional roll-out of the Ivy Tech Community College (ITCC) Logistics Management curriculum in EGR-3.³⁰ This will involve coordinating the efforts of Ivy Tech Community College-East Central with the following community and industry partners:

- ITCC's Northeast and Kokomo regions to ensure availability of logistics education throughout EGR-3
- EGR-3's regional distribution centers to promote this new education avenue to the incumbent workforce
- Indiana Economic Development Corporation (IEDC), EGR-3's economic development corporations and chambers of commerce to build a social marketing network
- Northeast Indiana Workforce Investment Board (NIWIB) and its successor workforce planning organization
- JobWorks and other WorkOne partners to align emerging and dislocated workers toward the potential of TD&L technology careers

²⁸ Ibid, p. 12.

²⁹ Ibid, p. 17.

³⁰ Ivy Tech Community College offers an Associates Degree in Logistics Management but program delivery currently is confined only to their Indianapolis campus.

To develop a baseline understanding of regional demand for this programming, MGCCC will conduct a comprehensive TD&L industry survey of current and anticipated occupational demand in EGR-3. Once completed, MGCCC will work with regional partners to create a database reflecting the survey results. MGCCC will update the regional survey annually. The survey information will be shared with ITCC to determine both scale and location of the ITCC Logistics Management program rollout.

MGCCC will develop and distribute TD&L-oriented marketing literature and broadcast media, which will focus on the career potential of TD&L and ITCC's Logistics Management program. Literature will be geared toward both prospective Logistics Management students and TD&L employers; broadcast media will focus entirely on the prospective student population. Additional regional marketing of the ITCC program will be coordinated with the Greater Fort Wayne Chamber of Commerce and other EGR-3 chambers of commerce.

MGCCC will also leverage its leadership role in EGR-3's fastest-growing logistics industry community to organize and convene quarterly regional gatherings of an EGR-3 TD&L Advisory Council. The Council, which will be comprised of at least 60 percent TD&L industry representation, will oversee and provide industry insight into the ITCC Logistics Management curriculum. The Council will also further regional strategy development to align workforce development and economic development to promote development of the TD&L industry cluster in EGR-3.

MGCCC will also conduct biennial focus groups of non-Advisory Council TD&L industry representatives to ensure that training services meet industry requirements. Information gathered at these focus groups will be communicated back to the Advisory Council.

Logistics management training

ITCC-East Central staff will custom-assess the specific skills and educational requirements of EGR-3's distribution centers and deliver core education, industry-recognized certificate training and Associates Degree programs in Logistics Management.

ITCC proposes the delivery of a multi-layered academic credit and industry recognized certificate system that will enable motivated learners to obtain the skills and abilities needed for success in TD&L management. Each layer would offer credit toward earning the next available level of certification or degree completion. As individuals progress through this program, their knowledge base will increase and the likelihood of their professional advancement will increase. This program, which allows the course work to be tailored to specific industry needs, will give students a distinct advantage above persons without this training.³¹

With no formal TD&L education avenues presently available in EGR-3, it is important to not just teach the technical skills but also align workers to the world of modern, technology-driven TD&L. Thus, career exposure is as important at the early stages of the student's coursework as skill development.³²

The entire logistics training continuum will be offered to incumbent workers from every distribution center in EGR-3. Based on initial research conducted by MGCCC, 5-10 personnel from each distribution center would be eligible for training. In addition, displaced workers will also be eligible for this training program.

³¹ Analyst root cause no. 3: Workers feel there is no opportunity to advance from their present position

³² Analyst root cause no. 6 & Industrial engineer root cause no. 5: Potential workers have unrealistic expectations of the industry

As ITCC is an open-enrollment community college system, the coursework would be open to members of the emerging workforce as well. Once class enrollments achieve sufficient size, Ivy Tech and/or MGCCC will work to develop dual credit options for high school students in areas of EGR-3, focusing at first on communities where the concentration of TD&L activity is highest.³³

Keeping with the open enrollment philosophy, the proposed ITCC logistics program would begin with survey-oriented content that will not require the standard ITCC prerequisite testing or remedial classes. However, for students with the desire to enter the Logistics Management program, the ITCC Admissions test and WorkKeys technical skill assessment mechanism will be utilized to measure student aptitudes and ability to meet general industry basic skill standards without remediation. The WorkKeys assessment focuses on general skill sets such as literacy and problem-solving skills, which are essential to the base workforce needs. With this knowledge, ITCC will be able to shepherd students to appropriate remediation to meet the baseline standards of the program.³⁴

Non-degreed Certificate in Modern Logistics

Curriculum would begin with a ground level introduction to TD&L through a short-term survey course.³⁵ The course would cover topics such as:

Working in a Warehouse Environment

- Introduction to logistics occupations
- Introduction to business principles
- General warehousing & transportation safety
- Work ethics
- Managing organizational change as it occurs
- Learning organizations in warehousing/transportation
- Critical work and life skills

Workforce Skills in Warehousing

- Effective communications skills
- Interviewing skills
- Working and collaborating with others

The Warehousing and Goods Distribution Process

- Warehousing & distribution of goods
- Warehousing productivity
- Inventory management methods & systems
- Materials and merchandise quality process control
- Palletizing processes
- Materials handling systems
- Hazardous materials handling

Warehousing Technologies & Skills

- Tracking scanners and data entry
- Warehousing data applications
- Problem solving in groups
- Industrial controls methods & systems
- Computers & automation in warehousing

³³ Industrial engineer root cause no. 3: School guidance counselors have little understanding of the opportunities in this occupation

³⁴ Analyst root cause no. 5 and Industrial engineer root cause no. 2: High school graduates have insufficient academic preparation for this occupation

³⁵ Analyst root cause no.6 & Industrial engineer root cause no. 5: Potential workers have unrealistic expectations of what it's like to work in this industry

Fundamental Warehousing & Transportation Skills

- Mathematics & Measurement in Logistics
- Calculators & Spreadsheets
- Fork Truck Driving & Safety
- Walkie & Jackstacker Operation & Safety
- Warehousing operations simulations

Experience the Industry

- Non-credit on-site experience provided and directed by industry partners, possibly consisting of facility tours

Career Development Certificate in Logistics

This certificate would be open to the general public but would be focused on persons employed in the logistics industry. Academic course titles in that program may include:

- Practical Mathematics
- English Composition
- Introduction to Business
- Principles of Marketing
- Introduction to Ethics
- World Geography
- Fundamentals of Public Speaking
- Fundamentals of Economics

In addition to the stated courseload, a practical experience component (internship, applied learning project) would be required to receive a Career Development Certificate.³⁶

Holders of a Career Development Certificate in Logistics likely would be eligible for most logistics analyst positions. Working with MGCCC, ITCC will ensure proper alignment of this certificate program and the skill requirements of the logistics analyst position (as described in the Careers in Logistics manual) in EGR-3.

Technical Certificate in Logistics

At this point in the student's academic career path, the student will have received at least 26 credit hours and a degree. The next level of achievement is a Technical Certificate. Courses in this degree may include:

- Technical Writing
- Intermediate Algebra
- Business Law
- Supply Chain Management
- Transportation Systems
- Operations Management
- Principles of Marketing

With those courses and another practical experience component completed, the student will have earned 48 credit hours and a Technical Certificate in Logistics.³⁷ Technical Certificate holders will be sufficiently prepared to pass the American Society of Transportation & Logistics' (ASTL) Certified in Transportation and Logistics (CTL) certification exams.

ITCC is pursuing ASTL approval for a blanket waiver for all ITCC Technical Certificate in Logistics holders to be granted CTL certificates, aligning curriculum to meet this recognized industry standard. Currently, that blanket waiver is available in Indiana only from Indiana University's Indianapolis campus. If ASTL does not approve this blanket waiver, ITCC will investigate alternative industry certification programs.

³⁶ Analyst root cause no. 4 & Industrial engineer root cause no. 4: Not enough practical experience with area employers

³⁷ Ibid

Associates Degree program in Logistics Management

ITCC completes its TD&L education curriculum with the Associate of Science in Logistics Management. These courses would be open to the public, but ITCC would gear its course delivery to the working TD&L professional with a strong reliance on practical learning experiences in every class.³⁸ The remaining courses, equaling 15 credit hours, may include:

- Statistics
- Introduction to Microcomputers
- Accounting
- Principals of Purchasing
- Human Resource management

An A.S. degree may afford graduates the opportunity to further advance into TD&L management positions and likely would be required for any individual intending to work as a logistics engineer. ITCC will continually consult with industry knowledge experts through the EGR-3 TD&L advisory council and first-person research to ensure that its Associates program aligns with the technical proficiencies needed to perform the role of a logistics engineer.

³⁸ Ibid

Funding request

	Year 1 SSI Funded	Year 2	
		SSI Funded	Match
Salary/Benefits			
MGCCC Exec./admin. staff salary and benefits • Based on 16 hrs/wk, 50 wks/yr	\$27,400	\$13,700	\$13,700
Contracted Services			
ITCC Research and Development	\$50,000	-	-
Modern Logistics	\$19,500	\$13,000	\$13,000
Career Development Certificate	\$18,700	\$26,000	\$26,000
Technical Certificate	-	\$11,125	\$11,125
Workshop facilitation - Greater Fort Wayne Chamber of Commerce	\$3,000	\$1,000	\$1,000
Travel Expenses			
EGR-3 (I-69 corridor) outreach, networking and field studies	\$1,000	\$500	\$500
Materials and Supplies			
Marketing concept research and development	\$500	-	-
Brochure: Design and layout	\$775	-	-
Brochure: Printing - 10,000 brochures, 5,000 pocket folders	\$3,674	-	-
Cable TV: Commercial production	\$250	-	-
Cable TV: August 2006 flight	\$4,986	-	-
Cable TV: December 2006 flight	\$2,252	-	-
Cable TV: August 2007 flight	-	\$1,249	\$1,249
Meals: EGR-3 TD&L Advisory Council Workshops	\$4,000	-	-
Meals: Non-Advisory Council TD&L Focus Groups	\$2,000	\$1,000	\$1,000
Overhead			
Fiscal administration, progress reports, fiscal records	\$5,000	\$2,500	\$2,500
Other Expenses			
Audit expenses, postage, phone, photocopier	\$4,000	\$2,000	\$2,000
Total	\$147,037	\$73,322	\$73,222
Total Two-Year SSI Funding Request	\$220,359		

Action plan

Who will do what	Results expected from the action	How existing regional resources in the public and private sector will be reallocated and/or leveraged to carry out the planned activities
PRE-ROLLOUT ALIGNMENT		
MGCCC will conduct a comprehensive TD&L industry survey of current and anticipated occupational demand, building on the SSI research in EGR-3	Increased understanding of demand environment in EGR-3; Alignment of program capacity to demand estimates	<ul style="list-style-type: none">• SSI funding• Volunteer time for advisory council members
Working with regional partners, MGCCC will create a database of existing and projected logistics warehouse distribution systems management demand		
MGCCC will establish and convene TD&L Advisory Council	Initial guidance for ITCC; establishment of ongoing communication vehicle for ITCC and EGR-3 TD&L industry	
ITCC will consult with TD&L Advisory Council and conduct regional focus groups to ensure that curriculum and educational outcomes align with current industry demand at program rollout		
Leveraging existing ITCC curriculum, ITCC will develop a comprehensive logistics technology curriculum that responds to identified demand	Customized delivery of program content to meet the need of EGR-3 TD&L industry	
MARKETING AND PUBLIC AWARENESS		
Coordinating efforts with Greater Fort Wayne Chamber of Commerce and other EGR-3 chambers, MGCCC will market ITCC logistics technology programs to the 11-County EGR-3 region	Increased demand awareness of ITCC logistics education opportunities in EGR-3	<ul style="list-style-type: none">• SSI funding• In-kind match of Chamber time

MGCCC will create and circulate marketing literature highlighting ITCC's logistics technology and warehouse management offerings throughout EGR-3's distribution centers, Ivy Tech campuses, and WorkOne offices. The brochures will target distribution center employers, managers, human resource directors, as well as current distribution center personnel seeking additional training and education.	Increased supply and demand awareness of ITCC logistics education opportunities in EGR-3	
MGCCC will also produce a television commercial highlighting the ITCC training program and career opportunities in TD&L. The commercials will target the emerging workforce and displaced workers. The commercials will air on cable television outlets throughout EGR-3 before the Fall 2006, Winter 2007 and Fall 2007 Ivy Tech semesters.	Increased supply awareness of logistics career potential and ITCC logistics education opportunities in EGR-3	
ONGOING PROGRAM MANAGEMENT		
ITCC conducts demand-responsive logistics management education programming at Marion Campus and across EGR-3 through collaborative programming with Northeast and Kokomo regions	Creation of skilled workforce for logistics management positions in EGR-3	<ul style="list-style-type: none"> • Tuition • Employer tuition match program
Working with select TD&L customers, ITCC staff custom-modifies core logistics management curriculum in response to unique demand when sufficient numbers will be trained as a result	Alignment of a flexible, responsive community college structure with industry needs	SSI funding and 50% match in year 2
MGCCC will convene quarterly EGR-3 TD&L Advisory Council sessions	Ongoing program monitoring and adaptation to market conditions; communication between TD&L industry and public sector partners	<ul style="list-style-type: none"> • SSI funding • Volunteer time for advisory council members
MGCCC will coordinate with service providers throughout EGR-3, to direct adult populations, dislocated workers and emerging workforce into the program	Alignment of public workforce funds with targeted growth area	SSI funding and 50% match in year 2

Service provider employer liaisons conduct employer outreach for On-The-Job-Training possibilities.	Increased demand awareness of ITCC logistics education opportunities in EGR-3; Alignment of public workforce funds with targeted growth area	Service provider funds
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Timeline

Implementation date	Action	Responsible parties & Resources allocated
June 2006	Identify Distribution Center Partners in EGR-3, partnering with regional chambers and economic development agencies.	MGCCC
June 2006	Begin developing curriculum	Ivy Tech
July 2006	Produce television commercials	Ivy Tech
July 2006-June 2007	Site visits to distribution centers. <ul style="list-style-type: none"> Initiate workforce development needs assessment survey. Grassroots formation of EGR-3 TD&L Advisory Council 	MGCCC
July 2006	Provide industry feedback for curriculum development	Ivy Tech MGCCC
July 2006	Air first flight of promotional commercials throughout region	MGCCC
August – September 2006	Organizational meeting of Regional Advisory Council	MGCCC, Ivy Tech, Advisory Council partners
September 2006	Produce and print marketing brochures and materials	MGCCC
October 2006	Non-Advisory Council TD&L Focus Groups	MGCCC, Ivy Tech, Advisory Council partners
October 2006	Begin distribution of promotional brochures, which continue throughout initiative	MGCCC
November 2006	Public kick off for quarterly modern logistics classes (will run March-June-November annually)	Ivy Tech, MGCCC
December 2006	Air second flight of television commercials	MGCCC
January 2007	Begin Career Development Certificate program, [(will start new CDC class series every Spring and Fall semester) First Step to Associate Degree]	Ivy Tech
January 2007	Regional Advisory Council meeting (Quarterly 2007, Bi-annually 2008)	MGCCC, Ivy Tech, Advisory Council partners

February 2007	Update meeting MGCCC-Ivy Tech and Regional Operator	MGCCC, Ivy Tech, Regional Operator
February 2007	Provide industry feedback for curriculum development	Ivy Tech MGCCC
March 2007	Modern logistics classes	Ivy Tech
July 2007	Industry Survey results provided to advisory council	MGCCC
March 2007	Regional Advisory Council meeting (Quarterly 2007, Bi-annually 2008)	MGCCC, Ivy Tech, Advisory Council partners
June 2007	Regional Advisory Council meeting (Quarterly 2007, Bi-annually 2008)	MGCCC, Ivy Tech, Advisory Council partners
July 2007	Update meeting MGCCC-Ivy Tech and Regional Operator	MGCCC, Ivy Tech, Regional Operator
August 2007	Begin Technical Certificate classes (second step to Associates Degree)	Ivy Tech
September 2007	Regional Advisory Council meeting (Quarterly 2007, Bi-annually 2008)	MGCCC, Ivy Tech, Advisory Council partners
January 2008	Begin Associate Degree level courses	Ivy Tech
January 2008	Regional Advisory Council meeting (Quarterly 2007, Bi-annually 2008)	MGCCC, Ivy Tech, Advisory Council partners
January 2008	Update meeting MGCCC-Ivy Tech and Regional Operator	MGCCC, Ivy Tech, Regional Operator
July 2008	Evaluation of grant metrics and re-evaluate program objectives.	MGCCC, Ivy Tech, Advisory Council partners, Job Works, NIWIB
August 2008	Provide classes for all levels of academic certification. (CDC-TC-AS)	Ivy Tech

Sustainability measures

- **Criteria:** Align technical training opportunities with TD&L industry in EGR-3
Metric: Creation and biannual maintenance of a database of warehouse systems management personnel positions in EGR-3 through employer surveys and interviews. Project near-future industry demands and share data with WorkOne partners to identify potential training candidates and career opportunities.
- **Criteria:** Develop technically proficient TD&L workforce to meet current and projected industry demand.
Metric: Create a regional pool of logistics warehouse systems management personnel to fill the existing and near-future needs of the industry. Specifically:
 - Enroll 15 students in logistics technology core education classes at Ivy Tech by December 2006; projecting scaling up to 80 by 2009.
 - Enroll 15 Students in the CDC program for Logistics; scaling up to 35 by 2009.
 - Enroll 10 students in Technical Certificate and American Society of Transportation and Logistics certification programs at Ivy Tech by June 2008; projecting scaling up to 20 by 2009.
 - Enroll 5 students in Ivy Tech's A.S. in Logistical Management program by September 2008; projecting up to 15 by 2009.
- **Criteria:** Build partnerships between TD&L industry and public sector partners to build the TD&L industry in EGR-3
Metric: Assemble and convene EGR-3 TD&L advisory council, consisting of at least sixty percent TD&L industry leaders and including EGR-3 economic development leaders and the Ivy Tech Community College-East Central Logistics Management program manager, with the role of:
 - Facilitating quarterly dialogue between Ivy Tech and industry representatives
 - Developing a meaningful forum for industry participation in Logistics Management program development and implementation throughout the region
 - Conducting biennial industry focus groups of non-advisory council members to ensure that Ivy Tech keeps curriculum relevant to industry requirements; reporting the results of the focus groups to Ivy Tech and the advisory council in a timely manner
 - Determining means of growing TD&L as an industry cluster in EGR-3 through alignment of targeted economic development and workforce development

Response from outside agencies

“The Grant County Economic Growth Council is pleased to see the collaboration between Ivy Tech Community College and the Marion Grant County Chamber of Commerce. The Growth Council views your SSI Logistical Industry Program as an important component in the remaking of Grant County to knowledge based economy. The Growth Council is looking forward to working with you.”

Jeff Southworth

President, Grant County Economic Growth Council

“I am writing in support of the Marion-Grant County Chamber of Commerce's grant request for the skills development in the logistics and distribution industry. That regions economy has been compromised by the closing of major manufacturing facilities during the last few years and needs assistance.

“The good work of the community to gain the Dollar General Distribution Center and the Wal-Mart Distribution Center needs to be rewarded. The skills required in this industry are changing daily and the I-69 corridor is critical to Indiana's prosperity.

“I hope that this community initiative will be rewarded by the State of Indiana.”

Philip P. Laux

President & CEO, Greater Fort Wayne Chamber of Commerce


Regional industry engagement

Organization and Information	Role
Dan Federspiel Triple Crown Ft. Wayne (Allen Co.)	Agreed to be part of the EGR-3 TD&L Advisory Council should this SSI solution be funded by the Indiana Department of Workforce Development
Pam Moore Dollar General Distribution Center Marion (Grant)	
Tony Stopp MAS & Assoc. Packaging Group Marion (Grant)	
Aaron DeWeese Marion-Grant County Chamber of Commerce Marion (Grant)	
JD Hodge Custom Transportation Services Inc. Marion (Grant)	
Gary Gatman JobWorks Ft. Wayne (Allen)	
Charles L. Bills I69 Logistics Gas City (Grant)	
Phil Laux Ft. Wayne Chamber of Commerce Fort Wayne (Allen)	
Darren Reese Ivy Tech Community College Marion (Grant)	
Tim Eckerle Grant County Economic Growth Council Marion (Grant)	

In addition, MGCCC market research uncovered a likely pool of potential focus group invitees (or additions to the Advisory Council) within EGR-3:

Organization and Information	
A J Logistics,	Fort Wayne (Allen Co.)
Commercial Warehouse & Cartage, Inc.,	Fort Wayne (Allen)
Custom Transportation Services Inc.,	Marion (Grant)
Dunhams Athleisure,	Marion (Grant)
Evans Logistics,	Butler (De Kalb)
Hiner Transport, Inc.,	Huntington (Huntington)
Homier Distributing,	Huntington (Huntington)
Johnston's Cartage & Warehouse, Inc.,	Fort Wayne (Allen)
Kemco Transport Inc.,	Marion (Grant)
Megatrux, Inc.,	Fort Wayne (Allen)
Montgomery Trucking, Inc. of IN,	Fort Wayne (Allen)
Specialized Transportation, Inc.,	Fort Wayne (Allen)
Tri-State Warehousing,	Fort Wayne (Allen)
VP Warehousing, LLC,	Fort Wayne (Allen)
Wal-Mart Distribution Center,	Gas City (Grant)
Wal-Mart Distribution Center,	Auburn (DeKalb)

Summary

LEAD SOLUTION SPONSOR		
Marion-Grant County Chamber of Commerce		
SUPPORTING PARTNERS		
Ivy Tech Community College, JobWorks, Greater Fort Wayne Chamber of Commerce		
LINE OF SIGHT		
		
<p><u>Shortage:</u></p> <p>Computer systems analysts, Industrial engineers in transportation, distribution and logistics industry</p>	<p><u>Root Cause:</u></p> <ul style="list-style-type: none"> • Not enough practical experience for workforce in this field • Potential employees have unrealistic expectations of industry • Workers at lower skill levels feel there is no opportunity to advance • High School graduates have insufficient academic preparation • Emerging workforce disinclination toward transportation, distribution and logistics 	<p><u>Solution:</u></p> <ul style="list-style-type: none"> • Introduce Ivy Tech Associate of Science in Logistics Management and American Society for Transportation and Logistics (ASTL) certification curriculum into EGR-3 along the I-69 corridor from Steuben/Lagrange to Grant/Wabash Counties • Conduct employer outreach to build awareness, custom-design key elements of curriculum and develop practical learning extensions of curriculum • Conduct social marketing campaign to build awareness of technological career opportunities in transportation, distribution and logistics in northeast Indiana
SKILLS ADDRESSED		
<ul style="list-style-type: none"> • Creativity and imagination • Leadership skills • Spatial thinking • Time management • Personal Computer hardware knowledge 	<ul style="list-style-type: none"> • Computer hardware and software certification • Detailed computer software application knowledge, especially with Microsoft Windows, Word, Excel and Access • Networking knowledge 	

REQUESTED FUNDING

\$220,359; 50% of match secured for year two

RECOMMENDED SSI FUNDING CATEGORIES

- **WIA Optional (Allowable) #1:** Provide capacity building & technical assistance to local areas, including local boards, One-Stop operators, One-Stop partners, and eligible providers, which includes 1) Staff development & training, and 2) The development of exemplary program activities.
- **WIA Optional (Allowable) #2:** Conduct research and demonstration
- **WIA Optional (Allowable) #5:** Implement innovative programs for displaced homemakers, and programs to increase the number of individuals trained for placement in nontraditional employment.
- **WIA Optional (Allowable) #6:** Carry out adult & dislocated worker employment & training activities as the state determines are necessary to assist local areas in carrying out local employment & training activities
- **State Skills 2016 (TAG) #2:** To enable firms to become competitive by making workers more productive through training.
- **State Skills 2016 (TAG) #3:** To create a competitive economy by creating and retaining jobs.
- **State Skills 2016 (TAG) #4:** To encourage the increased training necessary because of an aging workforce.
- **State Skills 2016 (TAG) #5:** To avoid potential payment of unemployment compensation by providing workers with enhanced job skills.
- **Workforce Development Funds (Block Grant) #1:** Employment & Training Services-Opportunities Industrialization Centers (OIC) Title 646 IAC 1-1-2. Used for (a) comprehensive job training & related services or job opportunities programs for economically disadvantaged, unemployed and underemployed individuals, including persons of limited English speaking ability through OIC & other like community based organizations
- **Workforce Development Funds (Block Grant) #8:** To provide training for dislocated workers under IC 22-4-41. IC22-4.6-2 (5)
- **Workforce Development Funds (Block Grant) #9:** To provide training for workers who are at risk of becoming dislocated workers because of a lack of skills. IC22-4.1-6-2 (6)
- **Workforce Development Funds (Block Grant) #10:** To provide comprehensive job training & related services for economically disadvantaged, unemployed, & underemployed individuals, including recruitment, counseling, remedial education, vocational training, job development, job placement, & other appropriate services to enable each individual to secure & retain employment at the individual's maximum capacity. IC22-4.1-6-2 (7)

SUPPLY GENERATION POTENTIAL

Year	Non-degreed Modern Logistics Certificate	Career Development Certificate in Logistics	American Society of Transportation and Logistics Certificate and Technical Certificate in Logistics	Associates Degree (A.S.) in Logistics Management
2006	15	-	-	-
2007	30	15	-	-
2008	50	25	10	5
2009	80	35	20	15

Contemporary Manufacturing/Technology Boot Camps

Solution description

The IPFW School of Business and Management Sciences proposes a learning experience for high school teachers, counselors, their students and WIA eligible training and service providers in the people, places, processes, and practices of contemporary manufacturing, technology, and logistics in northeast Indiana. This regional audience will be invited to the following series of annual intensive learning “boot camps” at a central in Fort Wayne.

These boot camp experiences are based upon a very successful model used in the summer of 2005 to orient secondary education professionals to entrepreneurship in northeast Indiana. While not veering from the organizational model, the content directly attacks the silo effect as it relates to the manufacturing, information technology and logistics industries in EGR-3.³⁹

Addressing the lack of exposure to career options, parallel boot camp experiences will be offered to area high school students.⁴⁰ Elements of the boot camp will be offered exclusively for professionals or students; other elements will bring the two groups together for a shared experience.

Desired outcomes of this programming include:

- Raising the understanding, appreciation, and respect for manufacturing, technology, and logistics jobs and careers in northeast Indiana among students, teachers, counselors and WIA eligible training service providers.
- Improved knowledge of education and skills of successful people in manufacturing, technology, and logistics.
- Improved and first hand knowledge of :
 - State of manufacturing, technology, and logistics in northeast Indiana and its future.
 - Locus of manufacturing, technology, and logistics jobs and careers.
 - Skills required in contemporary manufacturing, technology, and logistics.
 - Methods of assessing skills necessary for success in manufacturing, technology, and logistics.
 - People and electronic resources of manufacturing, technology, and logistics in the region.
- Connections among teachers, counselors, their students and WIA eligible training and service providers with the people, places, processes, and practices of advanced manufacturing, technology, and logistics in northeast Indiana.
- Ways (to be determined) of networking high school teachers, counselors, students, WIA eligible training and service providers and people of manufacturing after the summer experience. Participating teachers would conceive and design the network.

³⁹ Silo effect & Industrial engineer root cause no. 3: School guidance counselors have little understanding of the opportunities in this occupation

⁴⁰ Emerging workforce root cause: Fear of manufacturing & predisposition away from logistics; Industrial engineer root cause no. 2 & Computer systems analyst root cause no. 5: High school graduates have insufficient academic preparation for this occupation

Summer 2006 Program
Contemporary Manufacturing: Industrial Engineers

Boot Camp Experience in the Contemporary Manufacturing in Northeast Indiana

1. Meet the people of manufacturing, technology, and logistics in northeast Indiana
2. Visit their workplaces and explore the processes that produce the goods and services of manufacturing, technology, and logistics companies
3. Speak with the people of the workplace from shop floor to top management
4. Hear firsthand the learning needs that qualify people for jobs in manufacturing, technology, and logistics and that allow them to keep and grow jobs in these areas
5. See skills in practice
6. Practice firsthand the skills of the workplace, that is, work as a team in completing an elementary task in manufacturing, technology, and logistics on site
7. Hear the future of manufacturing, technology, and logistics in northeast Indiana and see advanced manufacturing and high tech industry in practice

July 17-21 2006 and July 24-28 2006, 8 AM – noon, Monday through Friday

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 8 AM to Noon	<ul style="list-style-type: none"> Northeast Indiana manufacturing environment Supply chains Speakers, materials, and links to electronic resources relating to NE Indiana manufacturing 	<ul style="list-style-type: none"> People of manufacturing Places of manufacturing Speakers, materials, and links to electronic resources 	<ul style="list-style-type: none"> Processes of manufacturing Speakers, materials, and links to electronic resources 	Practice: Site visit 1	Practice: Task completion at site visit 1
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 2 8 AM to Noon	<ul style="list-style-type: none"> NAFTA, outsourcing, off shoring, China How to survive as a northeast Indiana manufacturer Speakers, materials, and links to electronic resources 	<p>How to:</p> <ul style="list-style-type: none"> Assess skills Find training programs and providers Explore jobs and careers in manufacturing Find jobs in manufacturing Keep a job in manufacturing 	<ul style="list-style-type: none"> Advanced manufacturing in northeast Indiana 	Practice: Site visit 2	Practice: Task completion at site visit 2

Summer 2007 Program
Technology Industries: Computer Analysts

Boot Camp Experience in the Technology Industries of Northeast Indiana

1. Meet the people who conceive, operate, and grow technology industries (information, biomedical, biotech, nanotechnology) in northeast Indiana
2. Visit their workplaces and explore the information, biomedical, biotech, and other technology intensive businesses of the region
3. Speak with the people of the workplace from shop floor to top management
4. Hear firsthand the learning needs that qualify people for jobs in these industries
5. See skills in practice
6. Practice firsthand the skills of the workplace, that is, work as a team in completing an elementary assignment at the site
7. Hear the future of technology industries in northeast Indiana

Project Details

Third and fourth weeks of July 2007, 8:00 AM – noon, Monday through Friday

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 8 AM to Noon	<ul style="list-style-type: none"> Northeast Indiana technology industries including information, biomedical, biotechnology, nanotechnology Speakers, materials, and web links to regional companies 	<ul style="list-style-type: none"> People of technology industries Places of technology industries Speakers, materials, and web links to regional companies 	<ul style="list-style-type: none"> Processes of technology companies – how products and services of technology companies are made Speakers, materials, and links to electronic resources 	Practice: Site visit 1	Practice: Task completion at site visit 1
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 2 8 AM to Noon	<ul style="list-style-type: none"> How technology companies are spawned and grown Workforce needs Skill and knowledge bases for workers in these industries Speakers, materials, etc. 	How to: <ul style="list-style-type: none"> Assess skills Find training programs and providers Explore jobs and careers in technology companies Find jobs in technology companies Keep a job in a technology company 	<ul style="list-style-type: none"> Radio Frequency Identification (RFID) technology Innovation, creativity, and invention in technology industries 	Practice: Site visit 2	Practice: Task completion at site visit 2

Summer 2008 Program
Logistics Industries: Industrial Engineers and Computer Analysts

Boot Camp Experience in the Logistics Industries of Northeast Indiana

The IPFW School of Business and Management Sciences proposes a learning experience for high school teachers, counselors, and their students in the people, places, processes, and practices of the logistics industry in northeast Indiana. This audience will be invited to:

1. Meet the people who start and grow logistics companies in northeast Indiana
2. Visit the workplaces and explore the model for moving material short and long distances
3. Speak with the people of the workplace
4. Hear firsthand the learning needs that qualify people for jobs in these industries
5. See skills in practice
6. Practice firsthand the skills of the workplace, that is, work as a team in completing an elementary assignment at the site
7. Hear the future of logistic companies in northeast Indiana

Third and fourth weeks of July 2007, 8:00 AM – noon, Monday through Friday

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 8 AM to Noon	<ul style="list-style-type: none"> Northeast Indiana logistics industry Success factors Technology of moving stock and material Speakers, materials, and web links to regional companies 	<ul style="list-style-type: none"> People of the industry Places – where logistics companies locate and why Speakers, materials, and web links to regional companies 	<ul style="list-style-type: none"> Logistic processes Speakers, materials, and links to electronic resources 	Practice: Site visit 1	Practice: Task completion at site visit 1
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 2 8 AM to Noon	<ul style="list-style-type: none"> Spawning and growing logistic companies Skill and knowledge bases for workers in these industries Speakers, materials, etc. 	<p>How to:</p> <ul style="list-style-type: none"> Assess skills Find training programs and providers. Explore jobs and careers in logistics Find jobs in logistics Keep a job in logistics 	<ul style="list-style-type: none"> Interrelation among manufacturing, logistics and technology 	Practice: Site visit 2	Practice: Task completion at site visit 2

Funding request

	Year 1	Year 2	
	SSI Funded	SSI Funded	Match
Personnel			
Participant Stipends - 25 @ \$600	\$ 15,000	\$ 7,500	\$ 7,500
Program Administrator Stipend	\$ 4,000	\$ 2,000	\$ 2,000
Program Facilitators Stipend - 8 @ \$1,000	\$ 8,000	\$ 4,000	\$ 4,000
Total Personnel	\$ 27,000	\$ 13,500	\$ 13,500
Other Expenses			
Promotional Materials	\$ 500	\$ 250	\$ 250
Transportation	\$ 1,000	\$ 500	\$ 500
Workshop Materials	\$ 1,000	\$ 500	\$ 500
Facilities Expenses	\$ 1,000	\$ 500	\$ 500
Total Expenses	\$ 3,500	\$ 1,750	\$ 1,750
Total	\$ 30,500	\$ 15,250	\$ 15,250
Total Two-Year SSI Funding Request	\$45,750		

Action plan

Who will do what	Results expected from the action	How existing regional resources in the public and private sectors will be reallocated and/or leveraged to carry out the planned activities
<p>IPFW and its School of Business and Management Sciences will design, promote, deliver, and assess</p> <p>Summer 2006 Contemporary Manufacturing Boot Camp</p>	<p>25 participants complete the program</p> <ol style="list-style-type: none"> 1. Knowledge of regional employers, required skill set, experience in task performance and the regional manufacturing workplace. 2. Connection to the people, places, processes, and practices of regional manufacturing. 	<p>Source of funding: SSI funds</p> <p>Program brings together regional <u>human resources</u> in companies in employing the targeted strategic skills areas. They include:</p> <ol style="list-style-type: none"> 1. Regional students, their teachers, and career counselors. 2. Employers, supervisors, and other managers who hire, oversee, evaluate, and promote people in the strategic skills area. <p><u>Physical resources</u> of the workplace experiencing the skill shortage.</p> <ol style="list-style-type: none"> 1. The plant and or locus of work. 2. Locus of training programs. <p><u>Technology</u> integral to the skill shortage area.</p> <ol style="list-style-type: none"> 1. Special purpose hardware. 2. Special purpose software 3. Networking and related communication hardware and software. <p>The people, places, processes, and practices of regional public and private firms as well as professional associations are drawn (leveraged) to give first hand experiences in their needs for the skill set.</p>

<p>IPFW and its School of Business and Management Sciences will design, promote, deliver, and assess Summer 2007 Info. Technology Boot Camp</p>	<p>25 participants complete the program Same as above for technology companies and their skill requirements.</p>	<p>Source of funding: 50% SSI funds and 50% match funds Same as above for technology companies and the resources particular to their skill requirements.</p>
<p>IPFW and its School of Business and Management Sciences will design, promote, deliver, and assess Summer 2008 Logistics Boot Camp</p>	<p>25 participants complete the program Same as above for logistics companies and their skill requirements.</p>	<p>Source of funding: 100% local funds Same as above for logistics companies and the resources particular to their skill requirements.</p>

Timeline

Implementation dates	Responsible parties	Resource allocation
Program design and promotion - April 1 to June 15 of each year	IPFW School of Business and Management Sciences	<ul style="list-style-type: none">• Year 1: SSI funding• Year 2: 50% SSI funding and 50% match• Year 3: 100% local funding
Program delivery - Weeks 2 and 3 of July of each year	<ul style="list-style-type: none">• IPFW School of Business and Management Sciences	
Review and assessment – Weeks 1 and 2 of August of each year	<ul style="list-style-type: none">• Industry partners	

Sustainability measures

The program will be evaluated using performance data from pre- and post-tests to determine the improved and first hand knowledge of the following items:

- Criteria:** Improved participant understanding of state of manufacturing, technology, and logistics in northeast Indiana and its future.
Metric: Pre- and post-test of event participants
- Criteria:** Improved understanding of the locus of manufacturing, technology, and logistics jobs and careers.
Metric: Pre- and post-test of event participants
- Criteria:** Improved understanding of the skills required in contemporary manufacturing, technology, and logistics.
Metric: Pre- and post-test of event participants
- Criteria:** Improved understanding of the methods of assessing skills necessary for success in manufacturing, technology, and logistics.
Metric: Pre- and post-test of event participants
- Criteria:** Improved understanding of the people and electronic resources of manufacturing, technology, and logistics in the region.
Metric: Pre- and post-test of event participants

Response from outside agencies

"I would like to express my support for your proposed initiative for connecting high school principals, teachers, counselors and students with northeast Indiana manufacturers.

"The proposed program makes connections among the right individuals who can make a difference. Few educators come into our environment, and consequently do not have a good understanding of the necessary skills of our workforce. As you propose, visiting the manufacturing workplace and performing some basic tasks helps educators design the learning experiences that future workers will need.

"I look forward to a forum where I can demonstrate to the audience the math, mechanical, communications, technology and other skills out people need. In fact, they can hear it for themselves from our people.

"The proposal also gives us the opportunity to discuss the skills of the future. As we grow existing and new markets, adapt to the ever-changing needs of our customers, and compete in new and demanding ways, skills of the workforce have to grow to accommodate these changes. This is a good forum to share those future needs and help educators prepare young people for the workplace of the future.

"It is also good to see higher education and secondary education working together to address skill shortages.

"I support the proposed initiative and would like to participate in building and growing these connections.

Don Wood
President/CEO, 80/20 Inc.

"The Area Secondary Vocational Education Office, also known as Summit Career and Technical Education, has been both a financial and logistical supporter of the Entrepreneur Boot Camp since its inception. This note is to confirm that our office intends to continue its support of the program through the 3-year proposal put forth by Dean John Wellington of the Indiana University-Purdue University School of Business and Management Sciences.

"Our support has been both financial and logistical. We intend to continue the financial support, underwriting the teacher stipends for attendance, for the entire 3-years; however, it must be noted that our dollars are the result of the Carl D. Perkins Vocational and Technical Education Act of 1998. That particular act, up for renewal or cancellation in 1998, has been passed by both houses of Congress and is currently in joint committee to iron out minor differences. We do not anticipate any major changes to our funding, but it must be noted that we are not guaranteed that funding until Congress actually acts. But, as stated above, it is our intention to fund the stipends for the entire 3-year period.

"Regardless of what Congress does with our funding, this office will logistically support the boot camp. We have been the focal point of recruitment, and maintain contact with high schools throughout the NE Indiana region. This office intends to be the pipeline through which the classroom teachers/counselors/administrators in NE Indiana can connect to the Boot Camp.

"This proposal supports our philosophy of connecting K-12 education with the realities of the workforce and we are honored to have the privilege to participate in it."

Ron Flickinger
Area Director of Secondary Vocational Education, Anthis Career Center

“The Strategic Skills Initiative has caught the attention of many manufacturers. We are pleased that you and other are investigating the workforce needs of manufacturers in northeast Indiana. It is even better that teachers, counselors and students are coming to the workplace to see for themselves the skills that are necessary in today’s manufacturing environment.

“We value well trained workers. They raise productivity and in doing so allow us to compete in markets throughout the world. That is a win for all concerned. Good jobs, good pay and good markets.

“I am glad that you and secondary education are working together to design learning experiences that directly relate to the business of northeast Indiana manufacturers.

“I as well as other manufacturers look forward to a forum in which we can discuss current and future skill needs. You are making the correct connections.

“Again, I support the initiative and look forward to its launch.”

Mike Connolly
Executive Vice President, Rea Magnet Wire, Inc.

“By means of this letter I would like to express my support for the initiative you propose for connecting high school principals, teachers, counselors, and students with northeast Indiana manufacturers.

“The proposal addresses one of the root causes of shortages in the high demand high wage careers relating to manufacturing, information technology, and logistics. The northeast Indiana Strategic Skills Initiative found the disconnection between educators and the industries experiencing the shortages to be a significant. It arose in every focus group that addressed causes of the shortages. I am glad to see secondary and higher education working together to address causes.

“Manufacturers welcome the opportunity to demonstrate in the workplace the skill needs of today’s workforce. I and other manufacturers are glad to have a forum for discussion of the future skill needs of the workforce. Through forums such as this, educators can identify future needs and design appropriate curriculum and learning experiences for students. We all gain. The education is relevant to needs. Students find good paying jobs and our workforce needs are met with appropriate and well trained workers.

“I look forward to a forum where I can demonstrate to the audience the math, mechanical, communications, technology and other skills our people need. In fact, they can hear for themselves from our people.

“Your proposal also gives us the opportunity to discuss the skills of the future. As we grow existing and new markets, adapt to the ever-changing needs of our customers, and compete in new and demanding ways, skills of workforce have to grow to accommodate those changes. This is a good forum to share those future needs and help educators prepare young people for the workplace of the future.

“It is also good to see higher ed and secondary ed working together to address skill shortages.

“I support your proposed initiative and would like to participate in building and growing these connections.”




Michael Ottenweller
President, Ottenweller Co., Inc.

Regional industry engagement

IPFW has solicited support from a number of industry subject matter experts:

Organization and Information	Role
Don Wood President/CEO 80/20, Inc. Columbia City (Whitley County)	<ul style="list-style-type: none"> Contemporary manufacturing
Mike Connolly Executive Vice President Rea Magnet Wire, Inc. Fort Wayne (Allen)	<ul style="list-style-type: none"> Contemporary manufacturing
Michael Ottenweller President Ottenweller Co., Inc. Fort Wayne (Allen)	<ul style="list-style-type: none"> Contemporary manufacturing
John Snider Vice President, Retail Logistics Services Do It Best Corp. New Haven (Allen)	<ul style="list-style-type: none"> Contemporary logistics

Summary

LEAD SOLUTION SPONSOR		
Indiana University – Purdue University School of Business and Management Sciences		
SUPPORTING PARTNERS		
Do It Best Corporation, Ottenweller Manufacturing, REA Manufacturing, 80/20 Inc., Anthis Career Center		
LINE OF SIGHT		
		
<u>Shortage:</u> 2006: Industrial Engineer 2007: Computer Systems Analyst 2008: Logistics – Industrial Engineer and Computer Systems Analyst	 <u>Root Cause:</u> <ul style="list-style-type: none"> High school graduates have insufficient academic preparation for this career School guidance counselors have little understanding of opportunities in this profession Students do not have enough practical experience in this area prior to first employment Emerging workforce fear of manufacturing and disinclination toward transportation, distribution and logistics 	 <u>Solution:</u> <ul style="list-style-type: none"> 2006: A two-week intensive summer learning experience for WIA service providers, high school teachers, counselors, and their students in the people, places, processes, and practices of contemporary manufacturing in northeast Indiana 2007: The same, but focusing on modern technology business services and applications in northeast Indiana 2008: The same, but focusing on contemporary logistics in northeast Indiana
SKILLS ADDRESSED		
<ul style="list-style-type: none"> Creativity and imagination Leadership Thinking spatially Computer and technology inc. ability to use basic software such as Microsoft Office Suite Systems thinking 		<ul style="list-style-type: none"> Critical thinking Problem-solving Trouble-shooting Teamwork Communication
REQUESTED FUNDING		
\$45,750; 50% match funding secured for year two		

RECOMMENDED SSI FUNDING CATEGORIES

- **WIA Optional (Allowable) #1:** Provide capacity building & technical assistance to local areas, including local boards, One-Stop operators, One-Stop partners, and eligible providers, which includes 1) Staff development & training, and 2) The development of exemplary program activities.
- **WIA Optional (Allowable) #6:** Carry out adult & dislocated worker employment & training activities as the state determines are necessary to assist local areas in carrying out local employment & training activities
- **Workforce Development Funds (Block Grant) #10:** To provide comprehensive job training & related services for economically disadvantaged, unemployed, & underemployed individuals, including recruitment, counseling, remedial education, vocational training, job development, job placement, & other appropriate services to enable each individual to secure & retain employment at the individual's maximum capacity. IC22-4.1-6-2 (7)

SUPPLY GENERATION POTENTIAL

<i>Projections combine education professionals (teachers and guidance counselors), students and Workforce Investment Act eligible training providers and service providers</i>			
Year	Contemporary Manufacturing Boot Camp Graduates	Information Technology Boot Camp Graduates	Logistics Boot Camp Graduates
2006	25	-	-
2007	-	25	-
2008	-	-	25

IPFW Comprehensive Nursing Solutions

Solution description

The School of Health Sciences at IPFW provides the largest numbers of graduating nurses to northeast Indiana each year. The IPFW nursing program has a long history of proven success preparing these graduates for successfully passing the national RN licensing examination (NCLEX) and entering practice. Despite this, the numbers of RNs to meet regional needs lags behind expected need.

Furthermore, some hospitals have identified a need for nurses with advanced knowledge in specialty areas, such as critical care, emergency nursing, neurological nursing and oncology nursing. IPFW is the only school in EGR-3 that was identified as providing any preparatory curriculum toward these advanced certification tests, and their one course applied to the Critical Care Nursing certification.

The School of Health Sciences at IPFW received a large grant in September 2005 to establish and implement the Northeast Indiana Area Health Education Center (NEI AHEC). Area Health Education Centers are a federal project of the Health Resources Services Administration and serve to increase the number of students interested in healthcare careers, increase the number of healthcare workers serving in underserved areas, and increase the quality of healthcare.⁴¹ IPFW proposes to coordinate their solutions through the AHEC, which serves all of the northern Indiana counties. In addition, there are three other AHECs across the state. This project could show the significance of AHECs in increasing workforce capacity in healthcare professions and therefore be used as a model across the state.

IPFW also proposes to partner with Purdue University Extension Service and IPFW's Continuing Studies Department to provide distance education capacity for the region, in addition to adding distance education capability to the AHEC office, which is located in a high minority neighborhood in Allen County.

Persons from the Dean's Community Advisory Council of the School of Health Sciences, the advisory committee for the Northeast Indiana Area Health Education Center and the collaborating partner organizations will be asked to participate as members of the project advisory board. Proposed members include Dr. Alfred Stovall of the Dr. Jeff Towles Health Disparities Initiative, Renetta Williams of Health Visions and the Allen County Health Disparities Coalition, Dr. Deborah McMahan, Commissioner of the Allen County Department of Health, Ann Brown, Director of the IPFW/IVY Tech Crossroads program, and the vice presidents of nursing from the regional hospitals.

Persons hired into new NEI AHEC positions will be expected to build partnerships within the region and solicit funding from partners and other grant opportunities in order to sustain their positions and to fund 25 percent of the program costs in Year 2 and 75 percent in Year 3 and beyond. Monies generated through offering distance courses related to the project activities will be used to fund an additional 25 percent of costs in Year 2 and beyond.

Leveraging a Federal grant for Area Health Education Centers, IPFW proposes to take the AHEC concept further in the following ways – all of which are in direct response to root causes:

⁴¹ For more information on Area Health Education Centers, see <http://www.nationalahec.org/home/index.asp>

Root Cause	Solution	Rationale
Inadequate knowledge of and preparation for the profession on the part of middle and high school students.	<ul style="list-style-type: none"> Partner with the Northeast Indiana Health Education Center to provide presentations to K-12 students and their parents, utilizing the federal “Kids into Health Careers” curriculum. Conduct region-wide middle and secondary level school outreach, providing consultation and assistance to schools in developing nursing preparatory programs based on models such as Health Occupations Program and Career Academies. Develop / expand dual credit programming whenever possible. Develop and offer <i>HSC 100 Introduction to Health Careers</i> to high school students via distance learning technology. 	<ul style="list-style-type: none"> Students need to know and think about the career opportunities and preparation necessary to get into the profession at an early age. School / university partnerships can significantly impact students’ knowledge of, interest in, and capacity for entering the nursing profession.
Middle and high school students, especially first-generation high school students, do not believe they can afford to enroll in and complete a university nursing program.	<ul style="list-style-type: none"> Incorporate financial aid presentations into recruitment efforts, including information about the 21st Century Scholars program. Collaborate with the IVY Tech College system to provide a more affordable pathway to completing nursing programs. 	<ul style="list-style-type: none"> Students and parents need to understand the value of education and how to finance an education. IPFW and IVY Tech are already partners in the Crossroads to College program, which facilitates the recruitment and retention of students into higher education.

Potential workers have unrealistic expectations about what it is like to work in this profession.	<ul style="list-style-type: none"> Develop and offer summer and/or weekend immersion experiences in nursing which will also serve to introduce high school students to the university setting and experience. Collaborate with schools and hospitals to provide other experiential learning opportunities and shadowing experiences. 	Assuring that students know the realities of the nursing profession beforehand will decrease the number of students dropping programs. Increasing exposure to hospitals and the nursing profession will help students see the importance of nursing in the healthcare environment, the multiple roles and opportunities available as a result of a degree in nursing, and increase the attractiveness of this profession.
School guidance counselors have poor understanding of the opportunities in the profession and the rigor of the programs.	Expand the current Health Careers Information Day program to include guidance counselors from the entire region. Educate them on the opportunities in nursing as well as the academic preparation necessary at the middle and high school level for successful admission to the program.	Guidance counselors often assume that students with only fair interest or ability in science are a good fit for nursing as long as they are kind and express an interest in helping people. They direct the best students into medicine. They need to know that good science and critical thinking skills and a high GPA are critical for success and that good students should be encouraged towards this profession. Currently, we are only able to offer this program to a small group of guidance counselors.
The nursing shortage is especially acute in the rural areas.	Team with Purdue Extension system to promote the career of nursing via the 4H and other outreach programs.	The Purdue Extension System has offices in each county and is viewed as major resources to rural areas. They reach and influence thousands of children and parents each year via their 4H and other engagement programs. Their county offices are also potential sites for distance learning related to the nursing career.

Minorities are an untapped market for recruitment into nursing.	<ul style="list-style-type: none"> Involve high school students as volunteers in the Northeast Indiana Area Health Education Center's health screening project at Lafayette Medical Center, a medically underserved neighborhood. Develop the Northeast Indiana AHEC site at Lafayette Medical Center into a satellite site for coursework required for entrance into the nursing program, utilizing a variety of teaching methods and technologies. Collaborate with the Allen County Health Disparities Coalition, Health Visions, the African American Historical Museum, and the Dr. Jeff Towles Health Disparities Project to plan and provide motivational and mentoring experiences for minority students. 	While minorities have a long history as teachers, they are less likely to view the health careers as accessible careers for them. It is important to attract underserved populations into health careers not only so that health professionals are more representative of the general population, but also because research has identified those persons who come from underserved communities are more likely to return to those communities to work. The occupational stability and income potential in registered nursing represents an excellent path in which to guide all WIA-eligible youth.
Hospital systems have a need for specialty certified nurses.	Develop and offer nursing specialty courses and specialty examination prep courses via distance learning technology.	Provides the knowledge base in a format that is accessible to a region-wide audience in a manner so that they can work on the courses in their own timeframe
<ul style="list-style-type: none"> Stress and burnout among RNs already working in the profession is driving them out of the workforce. Lack of good communication and teamwork skills contributes to low morale among nurses. 	<ul style="list-style-type: none"> Collaborate with Purdue Extension System and the IPFW Division of Organization, Leadership and Supervision (OLS) to develop a regional colloquium that will offer skill-building in stress reduction, teamwork and communications in the healthcare setting. Provide continuing consultation to hospitals on these issues. 	Provides skills and direction to hospitals and clinics to increase a positive working environment and enhance retention

The IPFW School of Health Sciences has a long and established history of successfully funding and managing health research and community health and engagement projects, including obtaining multiple large grants over many years for dental care research; federal funding through U.S. Department of Health and Human Services for the Northeast Indiana Area Health Education Center; federal funding through the Office of the Surgeon General for the Northeast Indiana Medical Reserve Corps, state funding through the Indiana Department of Health to coordinate Indiana suicide prevention; and local funding from both of the primary healthcare systems for community health, pre-service, graduate and continuing education programs. Funding has been made possible due to the existence of already established and ever growing multiple partnerships throughout the region with community and health organizations and leaders which is supported by actively engaged and committed faculty, staff and administration. Their affiliations with Purdue University and Indiana University provide them with a multitude of additional resources for sustaining projects and programs.

Funding request

As this program intends to leverage the current AHEC grant, all aspects of match related to this comprehensive solution concept can be attributed to AHEC and in-kind match from IPFW.

Funding is requested at 100 percent for the first year. Upon evidence of successful use of the funds, the consortium will request a renewal of funding at 50 percent of program costs in the second year, with match obligations provided by IPFW.

Item	Year 1 SSI Funded	Year 2	
		SSI Funded	Match
Salary and Fringe Benefits for Nursing Faculty Liaison (1.0 FTE)	\$58,000	\$29,000	\$29,000
Salary and Fringe Benefits for K-12 School Liaison (0.75 FTE)	\$40,000	\$20,000	\$20,000
Distance Learning Technology and Media <ul style="list-style-type: none"> Install distance learning technology, including computers, at Lafayette Medical Center. Educational Workshop <ul style="list-style-type: none"> Develop and present colloquium; distribute CD on reduction of stress and teamwork skills to area hospitals and nurses 	\$50,000	\$2,500	\$2,500
Educational Supplies <ul style="list-style-type: none"> Educational and promotional handouts, brochures and other media 	\$8,000	\$4,000	\$4,000
Regional travel to schools <ul style="list-style-type: none"> Mileage to be paid at standard rate of \$0.46 per mile and \$15.00/daily per diem 	\$3,000	\$1,500	\$1,500
Laptop computers and cellular phones for liaison staff	\$4,500	\$1,125	\$1,125
Subtotal	\$161,000	\$57,125	\$57,125
Facilities and Administration Costs <ul style="list-style-type: none"> Budgeted @ 5% 	\$8,175	\$2,907	\$2,907
Total	\$171,675	\$61,032	\$61,032
Total Two-Year SSI Funding Request	\$232,706		

Action plan

Who will do what	Results expected from the action	How existing regional resources in the public and private sector will be reallocated and/or leveraged to carry out the planned activities
<p>Nursing faculty liaison</p> <ul style="list-style-type: none"> • MSN degreed nurse 	<ul style="list-style-type: none"> • Provide consultation to region high schools and middle schools on curriculum and nursing career experiences. • Teach the Health Sciences' Introduction to Health Careers course and work with the schools to develop and establish dual-credit courses. • Work with the Crossroads program to establish Nursing Career and Undecided Health Career learning communities at IPFW and Ivy Tech. • Develop nursing specialty certification courses. 	<p>Funding from SSI and 50% match in year 2</p>
<p>K-12 school liaison</p> <ul style="list-style-type: none"> • B.S. Nurse 	<ul style="list-style-type: none"> • Provide presentations to students and parents about healthcare careers and preparation needed for nursing. • Assist Nursing Faculty Liaison with above. 	

<ul style="list-style-type: none"> • EGR-3 K-12 schools • Nursing Faculty School Liaison • School Liaison 	<ul style="list-style-type: none"> • Partner with the Leo High School Health Career Academy to provide consultation and support for their programs. • Integrate university resources and support into the established Health Career Academy model and replicate model in an urban high school. • Provide health career summer camps so that students become acquainted with the realities of a nursing program. • Offer students experiential learning opportunities through the NEI – AHEC. • Encourage minority student interest in nursing through presentations by current nurses of color and the African American History Museum staff to discuss the opportunities for and history of minorities in nursing. • Offer Health Career Day each Spring to middle school students and their parents so that they understand what courses and preparation are necessary for nursing and other health careers. • Offer <i>HSC 100 Introduction to Health Careers</i> via distance learning to area high schools for college credit. • Work with area high schools and the College Connections program at IPFW to increase the number of students taking dual-credit and/or college credits while in high school that would enable them to more quickly enter a nursing program. 	<ul style="list-style-type: none"> • SSI funding and 50% match in year 2 • Volunteer time from current nursing professionals • Donated time from staff from the African American History Museum
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<ul style="list-style-type: none"> • IPFW Continuing Studies • Purdue University Extension Services 	<ul style="list-style-type: none"> • Offer the established Critical Care Nursing course via distance learning / onsite learning to involve a greater number of nurses in the knowledge and skills needed for specialty nursing. • Develop and offer distance learning courses through Continuing Studies to prepare RNs to take and pass the specialty certification examinations. • Develop and offer distance learning courses through Continuing Studies to take Continuing Education courses required to maintain their specialty certifications. 	<p>Expanded distance learning sites</p>
<ul style="list-style-type: none"> • IPFW OLS • Purdue Office of Engagement • Regional hospitals 	<p>Collaborate with IPFW Department of Organization, Leadership and Supervision, and the Purdue University Extension System to provide a colloquium on work environment stresses and solutions.</p>	<p>Colloquium expenses</p>

Timeline

Implementation dates	Responsible parties	Resource allocation
June, July and August 2006 <ul style="list-style-type: none"> Develop and meet with advisory board 	All partners / project coordinator responsible	SSI funding
No later than August 30, 2006 <ul style="list-style-type: none"> Offer summer health careers camp 	NEI AHEC staff	
August 2006 <ul style="list-style-type: none"> Meet with Leo High School to plan collaboration to enhance Health Careers programming 	<ul style="list-style-type: none"> NEI AHEC staff Leo Jr./Sr. High School 	
June 2006 – April 2007 <ul style="list-style-type: none"> Planning for Stress, Coping and Communications Colloquium 	<ul style="list-style-type: none"> IPFW School of Health Sciences IPFW OLS Purdue Office of Engagement Regional hospitals and health systems 	
August–December 2006 <ul style="list-style-type: none"> Develop student and parent presentations 	NEI AHEC staff	
August 2006 – May 2007 <ul style="list-style-type: none"> Develop distance learning courses (Introduction to Health Careers, nursing specialty certification courses) 	<ul style="list-style-type: none"> IPFW School of Health Sciences IPFW Continuing Studies Purdue University Extension Services 	
August 2006 – January 2007 <ul style="list-style-type: none"> Equip educational room at Lafayette Medical Center for distance learning 	NEI AHEC staff IPFW	
January 2007 <ul style="list-style-type: none"> Offer initial advanced nursing certification distance learning course 	IPFW School of Health Sciences	
January 2007 <ul style="list-style-type: none"> Offer student and parent presentations 	NEI AHEC staff	

January 2007	NEI AHEC staff	
<ul style="list-style-type: none"> Implement Career Academy enhancements with Leo High School and hospitals 		
January 2007	NEI AHEC staff	
<ul style="list-style-type: none"> Begin planning expansion of Career Academy model into an urban high school 		
May 2007	<ul style="list-style-type: none"> IPFW School of Health Sciences IPFW OLS Purdue Office of Engagement Regional hospitals and health systems 	
May 2007-May 2008	NEI AHEC staff	50% SSI funding 50% local match
<ul style="list-style-type: none"> Implement Career Academy program in an urban high school 		
May 2007-2008	<ul style="list-style-type: none"> IPFW School of Health Sciences IPFW Continuing Studies Purdue University Extension Services 	
May 2007-2008	NEI AHEC staff	
<ul style="list-style-type: none"> Continue school presentations 		

Sustainability measures

- **Criteria:** Level of student participation and breadth of outreach
Metric: Number of middle and high school students, school systems and other partners involved in the activities of this project
- **Criteria:** Conversion of outreach efforts into new nursing students
Metric: Number of students advised and entering nursing programs in the region as a result of project activities
- **Criteria:** Improved understanding of the nursing profession by the emerging workforce
Metric: Pre- and post-testing methods to assess knowledge of, attitudes about and interest in the nursing profession related to projects with K-12 students.
- **Criteria:** Decreased levels of RN stress and burnout
Metric: Pre- and post-testing to assess the quality and effectiveness of the programming to decrease the loss of nurses due to stress and burnout.
- **Criteria:** More RN's achieving advanced certification status
Metric: Number of RN's enrolled in advanced certification courses via local and distance learning; number of new advanced nursing certifications issued to course graduates

Dr. Erin Frew, Director of Assessment at IPFW, will be assisting with the planning and development of evaluation. *Tracker* software system already developed and available to the university will be utilized.

Response from outside agencies

“This letter is being written on behalf of Lutheran Hospital and in support of the Indiana Workforce grant proposal being presented by IPFW Department of Nursing and the School of Health Sciences.

“Lutheran Hospital has a long standing, collaborative relationship with the IPFW Department of Nursing through clinical experiences, health fairs, educational presentations, scholarships and many other efforts focused on the nursing profession. In addition to the collaborative relationship Lutheran Hospital has with area universities to provide clinical experiences, the shadow and internship program at Lutheran Hospital provides mentoring experiences for high school and college students and also proves to provide great recruitment opportunities.

“Through Lutheran Hospital’s affiliation with IPFW, a strong reliance is placed on the Department of Nursing for expanding students’ interest in nursing and continuing the long history of proven success IPFW has for preparing graduates for successfully passing the RN licensing examination and entering practice. Lutheran Hospital believes the School of Health Sciences at IPFW deserves great recognition for providing the largest numbers of graduating nurses to northeast Indiana each year. However, despite this, numbers of RNs to meet regional needs lags behind expected need.

“Recently, Lutheran Hospital received the prestigious award of Magnet designation by the American Nurses Credentialing Center. Lutheran is the first Magnet designated hospital in Fort Wayne and only 7th in the state of Indiana. Magnet designation enhances the recruitment and retention of highly qualified professional staff members, thus facilitating consistent delivery of quality patient care. In addition, Lutheran Hospital will now become a model for other healthcare organizations and contribute to upgrading the quality of nursing services in the national and international healthcare environments.

“Being a Magnet designated facility, Lutheran Hospital is expected to continue to advance the practice of nursing and to continue to provide opportunities for nurses to expand their knowledge through higher education, involvement in professional organizations and specialty certifications. Lutheran Hospital feels strongly that in order to continue the focus of delivering the highest quality patient care possible, opportunities exist for further developing critical thinking, practice, and work team skills as well as advancing knowledge through specialty certifications.

“In closing, Lutheran Hospital recognized that the root causes for the shortage of nurses in the northeast Indiana workforce are many and complex. However with this grant, IPFW will be able to implement strategies focused on initiative to address the nursing shortage in northeast Indiana. These initiatives include identifying promising middle and high school students in order to provide mentoring experiences and scholarship opportunities, providing consultation and support for health career programs at regional schools, guiding students into a BS program in nursing and providing students with experimental learning opportunities.”

Diane Springer, R.N., M.S.

Chief Nursing Officer, Lutheran Health System

Ms. Springer oversees nurses in seven hospitals across EGR-3

“The Fort Wayne African American Historical Museum supports the IPFW School of Health Sciences proposal to the Northeast Indiana Workforce Development Board. We will work with IPFW to assist with development and implementation of a display and presentations to regional schools about the history of African Americans in health careers.”

Hanna Stith

Executive Director, Fort Wayne African American Historical Museum

“The School of Health Sciences at IPFW provides the most nursing graduates in northeast Indiana each year. The nursing program has a history of proven success in preparing these graduates for successfully passing the national RN licensing examination and entering practice on an annual basis. Despite this, the number of RNs needed to meet regional needs lags behind the actual needs. In addition, our hospital has identified a need for nurses with advanced knowledge in specialty areas, i.e., critical care, emergency nursing, and telemetry.

“From our perspective, some of the root causes include:

- Inability of nursing programs in the region to prepare and graduate the number of nurses required to fulfill the needs
- Lack of adequate faculty at the university to level for RN education
- Lack of adequate preparation at the elementary and high school level for admission to the universities
- Lack of nurses with specialty certifications

“Potential strategies could include, but are not limited to:

- Identify potential middle and high students and provide mentor experiences and scholarship opportunities
- Provision of school presentations for health care options
- Partner with regional schools to provide consultation and support for their health career programs
- Offer students learning opportunities, e.g., shadow health care workers
- Guide students into BSN programs that assist them in developing critical thinking skills, good clinical experiences, and overall work ethics
- Establish nursing and undecided health careers learning communities at the university to provide mentor and support for students
- Collaborate with another IPFW department and the Purdue University Extension System to provide a colloquium

“Thank you for your support of the IPFW Department of Nursing and the School of Health Sciences.”

Rebecca Henry, RN, MSM

Chief Nursing Officer, St. Joseph Hospital

“The Fort Wayne African American Cancer Alliance, Inc. (FWAACA) is very pleased to offer this letter of support for the Area Health Education Center program to increase the number of registered nurses, with an emphasis on recruiting racial and ethnic minority students in northeast Indiana.

“As a partner organization within the Allen County Health Disparity Coalition, we have addressed the need to continue the process of promoting health care careers within underserved communities to assist in breaking down cultural barriers among the social and economically disadvantaged. Your plan to work with the school systems to make presentations about the career of nursing, helping educate students, parents and guidance counselors about ways of financing college and the preparation needed at the middle and high school level in order to be able to enter the profession, and working with the school system to develop more health career programming in area high schools, will assist in closing the gap in this disparity.

“We are enthusiastic about your programs and services that will be offered at the Lafayette Medical Center, and particularly your involvement as a collaborating partner with the Prevention Clinic.”

Evelyn J. Frierson

Director, Fort Wayne African-American Cancer Alliance, Inc.

“HealthVision of Fort Wayne supports Indiana University-Purdue University Fort Wayne School of Health Science efforts to increase the number of registered nurses and other health care careers for minority students in northeast Indiana.

“It is our understanding that the University is proposing to add distance-learning technology to the classrooms at the Lafayette Medical Center. They are also seeking to add staff to enter into the school system to do presentations to students, parents and guidance counselors on careers in nursing. The staff would also assist students and parent to locate finance for college and provide preparation needs at the middle and high school level in order to enter into the health care profession. We are proud to be a partner with Indiana University-Purdue University Fort Wayne.

“HealthVisions was founded in 1998 to initiate, coordinate and carry out community-based health improvement activities for underserved populations in the Central and Southeast Fort Wayne. We seek partnerships with other groups to provide and support research and education to improve the health needs at the community level. We are committed to partnering with individuals, organizations, and special populations in building a healthy community. Therefore it is a natural fit for us to lend our support to this organization

Renetta H. Williams

Executive Director, HealthVisions of Fort Wayne

Regional industry engagement

Organization and Information	Role
IPFW School of Health Sciences <ul style="list-style-type: none"> Nursing Department Northeast Indiana Area Health Education Center 	Lead agency
Crossroads program (IPFW and IVY Tech)	Partners to develop and implement dual-credit courses for high school students and learning communities
IPFW Division of Organization, Leadership and Supervision	Partner for Stress, Coping and Communication Colloquium and consultation
Purdue University Extension Services / Engagement	<ul style="list-style-type: none"> Partner for Stress, Coping and Communication Colloquium and consultation Outreach resources for rural engagement
Leo High School and East Allen County Schools	Career Academy Partner
Northeast Indiana hospitals	Partner to provide experiential learning for high school students
<ul style="list-style-type: none"> Health Visions Dr. Jeff Towles Health Disparities Initiative Fort Wayne African American Cancer Alliance African American Historical Museum Allen County Health Disparities Coalition 	Partners for engagement of minority students into health careers

Summary

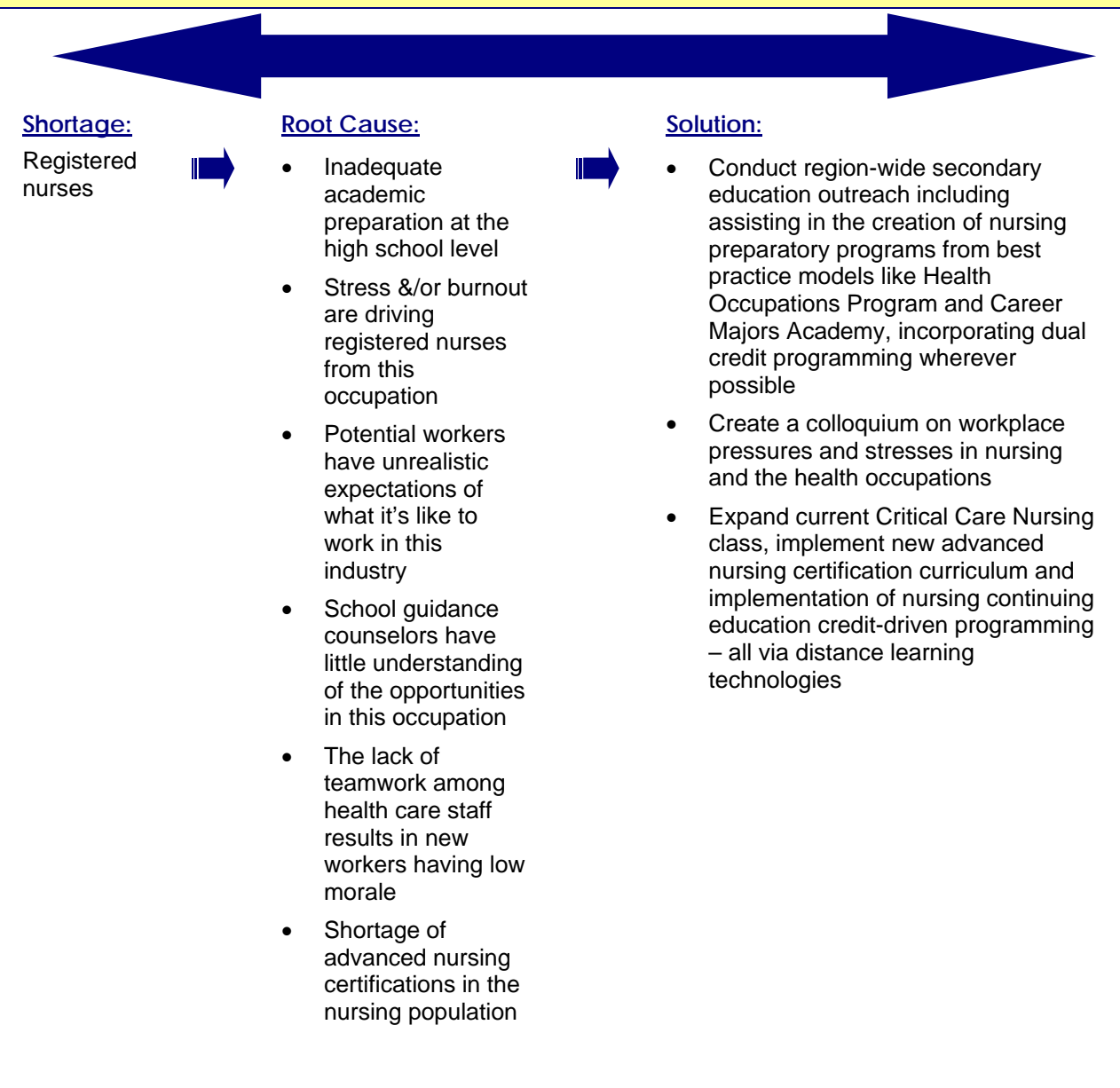
LEAD SOLUTION SPONSOR

Indiana University – Purdue University Fort Wayne School of Health Sciences

SUPPORTING PARTNERS

Purdue University Extension System; IPFW Continuing Studies; IPFW Division of Organization, Leadership & Supervision; Leo High School; Lutheran Health System; Parkview Health; Health Visions; Allen County Health Disparities Coalition; Dr. Jeff Towles Health Disparities Initiative; Fort Wayne African American Cancer Alliance; Fort Wayne African American History Museum

LINE OF SIGHT



REQUESTED FUNDING

\$232,706; 50% match funding secured for year two

RECOMMENDED SSI FUNDING SOURCES

- **WIA Required (Mandatory) #5:** Providing additional assistance to local areas that have high concentrations of eligible youth.
- **WIA Optional (Allowed) #3:** Establish & implement innovative incumbent worker training programs, which may include an employer loan program to assist in skills upgrading, and programs targeted to empowerment zones & enterprise communities
- **WIA Optional (Allowed) #6:** Carry out adult & dislocated worker employment & training activities as the state determines are necessary to assist local areas in carrying out local employment & training activities
- **State Skills 2016 (TAG) #2:** To enable firms to become competitive by making workers more productive through training.
- **State Skills 2016 (TAG) #3:** To create a competitive economy by creating and retaining jobs.
- **State Skills 2016 (TAG) #4:** To encourage the increased training necessary because of an aging workforce.
- **State Skills 2016 (TAG) #5:** To avoid potential payment of unemployment compensation by providing workers with enhanced job skills.
- **Workforce Development Funds (Block Grant) #9:** To provide training for workers who are at risk of becoming dislocated workers because of a lack of skills. IC22-4.1-6-2 (6)
- **Workforce Development Funds (Block Grant) #10:** To provide comprehensive job training & related services for economically disadvantaged, unemployed, & underemployed individuals, including recruitment, counseling, remedial education, vocational training, job development, job placement, & other appropriate services to enable each individual to secure & retain employment at the individual's maximum capacity. IC22-4.1-6-2 (7)
- **Workforce Development Funds (Block Grant) #11:** To attract federal funds in order to increase the resources available to carry out the purpose of this section. IC22-4.1-6-2 (8)

SUPPLY GENERATION POTENTIAL

Year	New Nursing Students	New Advanced Nursing Certifications issued
2006	50	20
2007	50	20
2008	60	20
2009	75	20

Registered Nursing Career Ladder & Pipeline Development

Solution description

The Grant County Community ranks near the bottom in many important economic indices. As our world flattens and corporations seek out new ways to enhance their shareholder value, Grant County has been decimated with manufacturing plant closings and increased social welfare dependency. Simultaneously we have suffered from an alarming rise in health and wellness issues, both among the young and retired populations. Our local paper has published numerous articles on our county's growing health crisis.

Once home to glass bottle manufacturers, numerous auto parts suppliers, corrugated box manufacturers, television tube assemblers, and others, Grant County has lost over 3,000 high paying manufacturing jobs in the last few years. However, all is not bleak. Grant County is home to three outstanding institutions of higher education: Indiana Wesleyan University, Taylor University, and Ivy Tech Community College. In addition, new investments made by Wal-Mart, Dollar General, small manufacturers, entrepreneurs, healthcare providers and our higher education community have the promise of over 2,000 new jobs committed to Grant County. This has the community hopeful for the future.

The healthcare industry is one stable source of growth opportunity in Grant County and plays a crucial role in attracting future employers. However, due to the community's strong link to manufacturing it has not been a primary choice for their workforce. Their local workforce has been steered towards the promise of the high wage, low skill jobs of the industrial past. The healthcare industry in Grant County offers numerous opportunities for those who are willing to become highly educated and invest in enhancing their careers. The healthcare industry provides high wages, numerous employee benefits, consistent income, and the opportunity for many of our Grant County residents to enhance their skills.

The recruitment and retention of professional nurses is a problem that haunts every healthcare employer. Grant County is no different and must compete against employers in metropolitan areas to the north and south that offer not only higher wages, but access to a variety of quality of life initiatives that cannot be duplicated in Grant County. Grant County healthcare employers can address this problem by investing in their employees, enhancing employee loyalty, and building retention and recruitment by focusing on incumbent workers, and by recruiting those who traditionally would not consider a career in healthcare.

A Grant County consortium of healthcare employers and healthcare training providers will collaborate to create new capacity of registered nurses. They propose a three tiered-approach.

- **The first** is immediately to fund the tuition of 25 new Registered Nurses (RNs) in Grant County.
- **Secondly**, we will work collaboratively to increase the pool of potential RN candidates by funding the tuition of 25 additional Licensed Practical Nurses (LPNs) in Grant County.
- **Thirdly**, we will build interest in the healthcare industry as a viable career option for our Grant County residents by creating health-job fairs, establishing a health-occupations speaker's bureau and marketing the benefits of this industry to those who traditionally have not considered it as a career option, especially WIA-eligible youth.

The Grant County Economic Growth Council (GCEGC) will be the lead agency responsible for implementing our proposed solution. The GCEGC has created a consortium of employers and

solution/training providers who will work collaboratively to address the issue of recruiting qualified applicants to become trained as Registered Nurses with the goal of these new RN's to be employed and live in Grant County. Working collaboratively, the goal of this SSI request is to train 25 new Registered Nurses in Grant County in the next 24 months, establish a secondary pool of eligible, eager, and motivated Licensed Practical Nurses, and recruit new employees into the health care industry in Grant County by targeting those who normally would not consider health care as a career option.

The consortium employers consist of the following:

- Marion General Hospital: Bernadine Wallace, RN, Chief Nursing Officer
- TLC Management: Dwight Ott, Vice President
- Bradner Village H.C.C.: Eric Walts, President

This consortium of employers currently employs over 2,100 individuals working in Grant County.

The consortium of solutions providers consists of the following:

- Ivy Tech Community College - Susan Smoker, MSN, Clinical Instructor
- Indiana Wesleyan University - Dr. Jerry Pattengale, Assistant Vice President
- Tucker Career & Technology Center - Dr. Andrew Nixon, Superintendent

Each of these Solutions Providers has existing RN and LPN training programs available in or within a short commute of Grant County.

The goal of the SSI RN grant request is to obtain State of Indiana support to recruit and train 25 new Registered Nurses in Grant County. The consortium of employers provides an abundant source of incumbent workers who, with tuition assistance and support from their employers, are capable of matriculating into an existing RN training program.

Tuition scholarships will cover up to \$3,500 per student in year one of the program and \$1,750 (or 50 percent of tuition, whichever is less) per student in year two. Each Employer partner has agreed to fund 50 percent of their students' tuition expenses in the nursing training program in the 2nd year of the grant. Each employer partner has a tuition reimbursement program that will be enhanced, with a commitment to fund an increasing number during post-grant years.

Students/Workers selected to participate in the SSI-funded solution will experience the following outcomes:

- Enhanced training and experience
- A portable and accredited training credential
- Significant increase in base wages and income potential
- Enhanced employment opportunities

Through surveys and focus groups attached to this funding, they will likely also have more input and connection to their place of employment.⁴²

In turn, the consortium of employers will retain qualified high-demand workers more engaged as a result of their funded training opportunities. They expect that the loyalty of the employees will be enhanced, as the investment made by their respective employers will be greatly appreciated. One measurable outcome will be the number of student participants during the second year that assist with recruitment of future nursing students (tracked via an incentive

⁴² Cross-cutting root cause: Employer-Employee loyalty

arrangement). Providing residents with new income and new spending capabilities will also enhance the economy of Grant County.

In addition, the secondary goal is to establish an effective career ladder for incumbent health care workers to reach the goal of becoming an RN by recruiting an additional 25 incumbent health care workers to become LPNs. LPNs are an effective pool of eligible recruits for our RN program as they have a knowledge and understanding of the demands and challenges of the workplace that the SSI has identified (see the Root Cause Report of the EGR-3 SSI).

The consortium understands that in order to build capacity of RN workers, they must collaboratively encourage and recruit LPNs. Thus, they intend to offer the same scholarship program to LPN candidates.

The third goal of the consortium is to host community wide job fairs and recruitment seminars in our high schools and current health occupation clusters offered by our schools to encourage students to enter the health care industry.

Grant County's need for RNs and LPNs will be a continuous demand. By utilizing programs such as VoPro, Black Expo, Career Day, Intern Fair and the job fairs that are structured in Grant County, Consortium will be able to reach WIA eligible youth. These are also the students who may not consider obtaining a higher education unless they are offered financial assistance. Introducing the field of nursing at these open programs will invite students to earn a degree at one of the local universities. It will also fill the nursing shortage by providing Grant County's students an opportunity to obtain a nursing degree while continuing to reside in Grant County.

Funding request

Scholarships will be matched, dollar for dollar, in year two through employer tuition reimbursement programs in place with each consortium member.

All other match obligations will be distributed evenly between the consortium members.

Item	Year 1	Year 2	
		SSI Funded	Match
Salaries and benefits <ul style="list-style-type: none"> Salary and Benefits for Growth Council staff to facilitate the consortium activities, recruitment fairs, coordinate meetings, etc. 	\$15,000	\$7,500	\$7,500
Contracted Services <ul style="list-style-type: none"> \$10,000 for evaluation services Scholarships 	\$185,000	\$48,750	\$48,750
Travel Expenses <ul style="list-style-type: none"> Each student will receive \$50 toward gas expenses (paid at \$.39/mile) after the end of the first successful grading period in this program (Up to \$2,500 total over two years) \$2,500 travel funds for nursing professionals and Growth Council staff to visit student training programs, intern providers, and planning sessions 	\$2,500	\$1,250	\$1,250
Material and Supplies <ul style="list-style-type: none"> Supplies required for outfitting an existing office for new work roles. The main expense will be a workstation space for collaborating nurse professionals. 	\$500	\$250	\$250
Overhead <ul style="list-style-type: none"> Includes ¼ rent for office space, photocopier, dedicated cell phones, secretarial support, student intern assistance, internet access, computer laptop equipment, phones, office supplies, postage. Audit expenses 	\$12,000	\$6,000	\$6,000
Other Expenses <ul style="list-style-type: none"> Marketing materials to be developed to encourage interest in Health Care Careers, Nursing Recruitment Fairs, Job fair registration, and the staffing and expenses of these fairs. 	\$2,500	\$1,250	\$1,250
Annual Total	\$217,500	\$65,000	\$65,000
Total Request	\$282,500		

Action plan

Who will do what	Results expected from the action	How existing regional resources in the public and private sector will be reallocated and/or leveraged to carry out the planned activities
Consortium members <ul style="list-style-type: none"> Identify incumbent staff and enroll staff in RN or LPN training 	25 new certified RNs and 25 new certified LPNs employed by consortium members	<ul style="list-style-type: none"> Year 1: SSI funding Year 2: 50% SSI funding, 50% consortium match
Economic Growth Council and Consortium staff members <ul style="list-style-type: none"> Participate in community outreach efforts including (but not limited to) VoPro, Black Expo and Job Fairs 	Increase the number of nursing students in Grant County	
Economic Growth Council <ul style="list-style-type: none"> Contract with evaluation consultant 	Conduct evaluation of SSI-funded program, offering opportunity for mid-implementation program improvement and post-year two planning	

Timeline

Implementation dates	Responsible parties	Resource allocation
June-July 2006 <ul style="list-style-type: none"> Identification of 1st class of RN and LPN candidates 	Consortium members	SSI funding
August 2006 <ul style="list-style-type: none"> 1st semester enrollment of 1st class of RN and LPN candidates 	Consortium members	SSI funding
January 2007 <ul style="list-style-type: none"> Distribution of student travel incentives 2nd semester enrollment of 1st class of RN and LPN candidates 	<ul style="list-style-type: none"> Economic Growth Council Consortium members 	SSI funding
January 2007 <ul style="list-style-type: none"> First evaluation of Grant County SSI program 	<ul style="list-style-type: none"> Economic Growth Council Evaluation consultant 	SSI funding
August 2007 <ul style="list-style-type: none"> 2nd year, 1st semester enrollment of 1st class of RN candidates 	Consortium members	<ul style="list-style-type: none"> 50% SSI funding 50% tuition reimbursement from Consortium
January 2008 <ul style="list-style-type: none"> Distribution of travel incentives to 2nd class of RN and LPN candidates 2nd year, 2nd semester enrollment of 1st class of RN candidates 	<ul style="list-style-type: none"> Economic Growth Council Consortium members 	<ul style="list-style-type: none"> 50% SSI funding 50% tuition reimbursement from Consortium
May 2008 <ul style="list-style-type: none"> Second evaluation of Grant County SSI program 	<ul style="list-style-type: none"> Economic Growth Council Evaluation Consultant 	<ul style="list-style-type: none"> 50% SSI funding 50% tuition reimbursement from Consortium
June 2006-May 2008 <ul style="list-style-type: none"> Participate in Grant County community programming to conduct outreach to WIA-eligible youth 	<ul style="list-style-type: none"> Economic Growth Council Consortium member staff 	<ul style="list-style-type: none"> Year 1: SSI funding Year 2: 50% SSI funding, 50% consortium match

Sustainability measures

Outcomes will be measured both quantitatively and qualitatively. A consultant will assist with two reports, the first after six months of the program, and the second after the end of year two. The first report will provide feedback for changes during the remainder of the funding period. The second report will provide direction for post-grant planning.

- **Criteria:** Tracking both applicants and successful completions of this program consortium
Metric: Develop benchmark data charts of key personnel and job areas
Metric: Number of incumbent healthcare workers with no nursing training and incumbent LPN workers who enroll in program and pass rates on bi-annual basis
- **Criteria:** Evaluate performance and user satisfaction with the program
Metric: Survey and neutrally facilitated focus groups of both participating students and potential students to develop fuller understanding of ways to improve the program
- **Criteria:** Long-term effectiveness of seed funding in changing workforce attitudes toward health occupations
Metric: Number of LPN and RN training applicants going into the post-grant period using indicators of mailing responses, admission applications, and other outreach contacts

Response from outside agencies

Through its local and regional RN and LPN programs, Ivy Tech is a key workforce provider for professional nursing staff in health care services.

There are many students that need financial assistance to enroll in our academic programs. Scholarships would have a dramatic impact on the livelihood of persons that possess the ability and are held back simply by the financial means to reach their potential. Looking on a larger scale, not only the students would benefit from financial assistance, the families of the students who can secure a better financial future and the local economy that is in need of such a workforce would witness a positive outcome.


Ivy Tech welcomes the opportunity to support the Grant County Economic Growth Council and other partner agencies in the effort to uplift the Grant County workforce to meet the healthcare needs of our regional population.

Darren Reese, Corporate and Community Relations Manager
Ivy Tech Community College, Marion Campus

Regional industry engagement

Organization and Information	Role
Grant County Economic Growth Council	<ul style="list-style-type: none"> The Council will serve as the lead agency of the SSI nursing grant in Grant County. It will: <ul style="list-style-type: none"> Coordinate recruitment of students Provide support services for the consortium Conduct interviews of prospective candidates Process all required documentation Monitor compliance Conduct area healthcare recruitment fairs and promotions Act as liaison between our consortium and SSI staff
Marion General Hospital (MGH)	<ul style="list-style-type: none"> MGH will provide opportunities for current employees to expand their skills by attending one of the accredited RN training programs offered in the area. MGH will use its tuition reimbursement program to provide the 50% match required by the SSI grant in the second year.
TLC Management	<ul style="list-style-type: none"> These two companies operate three Nursing Facilities in Grant County and will recruit current health care workers to participate in the RN/LPN training programs. Each of these long term care providers will use their tuition reimbursement programs to provide a 50% match required by the SSI grant in the second year
Bradner Village, H.C.C.	

Summary

LEAD SOLUTION SPONSOR		
Grant County Economic Growth Council		
SUPPORTING PARTNERS		
Bradner Village H.C.C., Marion General Hospital, TLC Management, Ivy Tech Community College, Indiana Wesleyan University, Tucker Career & Counseling Center		
LINE OF SIGHT		
		
<p><u>Shortage:</u></p> <p>Registered nurses</p>	<p><u>Root Cause:</u></p> <ul style="list-style-type: none"> • Inadequate academic preparation at the high school level • Potential workers have unrealistic expectations of what it's like to work in this industry • School guidance counselors have little understanding of the opportunities in this occupation • Lack of employer-employee loyalty 	<p><u>Solution:</u></p> <ul style="list-style-type: none"> • Enroll and graduate 25 new Registered Nurses, using employer tuition reimbursement incentives • Create a Registered Nursing career ladder pipeline by enrolling and graduating 25 new Licensed Practical Nurses, using employer tuition reimbursement incentives • Build interest in healthcare careers option for Grant County residents through health career fairs, a health-occupations speaker's bureau and outreach to marketing to non-traditional nursing populations, especially WIA-eligible youth
REQUESTED FUNDING		
\$282,500; 50% match funding secured for year two		
RECOMMENDED SSI FUNDING SOURCES		
<ul style="list-style-type: none"> • WIA Required (Mandatory) #5: Providing additional assistance to local areas that have high concentrations of eligible youth. • WIA Optional (Allowed) #3: Establish & implement innovative incumbent worker training programs, which may include an employer loan program to assist in skills upgrading, and programs targeted to empowerment zones & enterprise communities • WIA Optional (Allowed) #6: Carry out adult & dislocated worker employment & training activities as the state determines are necessary to assist local areas in carrying out local employment & training activities • State Skills 2016 (TAG) #2: To enable firms to become competitive by making workers more productive through training. • State Skills 2016 (TAG) #4: To encourage the increased training necessary because of an aging workforce. 		

- **Workforce Development Funds (Block Grant) #10:** To provide comprehensive job training & related services for economically disadvantaged, unemployed, & underemployed individuals, including recruitment, counseling, remedial education, vocational training, job development, job placement, & other appropriate services to enable each individual to secure & retain employment at the individual's maximum capacity. IC22-4.1-6-2 (7)

SUPPLY GENERATION POTENTIAL

Year	New RNs			New LPNs		
	Marion General	TLC Management	Bradner Village	Marion General	TLC Management	Bradner Village
2006	-	-	-	-	-	-
2007	-	-	-	5	12	3
2008	20	3	2	-	-	-

Administrative role

Under this SSI solutions portfolio, NIWIB and EGR-3's successor regional operator will conduct administrative duties related to SSI. Specifically, NIWIB and/or the regional operator will provide technical assistance to the solutions providers to ensure that they are meeting their specific criteria for success with their individual solutions. In addition, NIWIB and/or the regional operator will oversee implementation of the solutions, reporting to Indiana Department of Workforce Development on a quarterly basis on the following criteria for each solution:

- How efficiently funds were used
- How closely the proposed timelines were followed
- How much the shortages were actually reduced
- How prevalent the shortages still are
- How the sectors/industries and/or clusters of industries have responded to the implementation of solutions

On the last point, the accelerated timeline of the SSI process left insufficient time for most solutions providers to secure a number of industry consortium partners beyond that required for match purposes. With the exception of the Grant County Registered Nursing Career Ladder program, where direct grants-in-aid are contemplated, **we propose to administer a Skills 2016 Training Grant (TAG) program scholarship pool of \$200,000 (\$75,000 in year one, \$125,000 in year two) to be offered on a cost reimbursement basis to EGR-3 employers for matched scholarships (on the same sliding scale for match as Indiana's Incumbent Worker Training grants, capped at \$2,000 per person) for their employees in the following SSI solutions** where this concept is applicable:

- Center for Excellence in Advanced Manufacturing
- Advanced Business Technology Solutions
- Nursing Clinical Instructor Training (part of Nursing Clinical Placement Clearinghouse)
- Advanced Nursing Certifications (part of IPFW Comprehensive Nursing Solutions)

We believe that this concept addresses a cross-cutting root cause, that of a lack of employer-employee loyalty, by encouraging employers to invest in their employees' continuing skill development. In addition, this strict oversight of scholarships allows us to accurately gauge the last monitoring item mentioned above.

A full EGR-3 SSI line item budget justification (including EGR-3's eight proposed solutions and EGR-3 scholarships) follows

EGR-3 Strategic Skills Initiative Line Item Budget Justification			
July 1, 2006 to June 30, 2008			
Staff Costs:			\$269,095
CEO	5%		
President	15%		
Vice President/Finance	10%		
Operations Manager	10%		
Project Manager	100%		
Business Services Coordinator	5%		
Clerical Assistance	10%		
Financial Associate	10%		
PMIS Associate	2.5%		
<i>Fringe Benefits are calculated at 30% of the wages paid.</i>			
Consultant Assistance			30,000
(Community Research Institute)			
Travel:			15,714
Mileage at .485 cents per mile for the Project Coordinator	7,566		
(150 miles per week for 24 months)			
Mileage at .485 cents per mile for other WIB Staff	2,910		
(250 miles per month for 24 months)			
Registration Fees	2,970		
(Project Coordinator and other WIB Staff)			
Lodging and Per Diem	2,268		
(Project Coordinator and other WIB Staff)			
Other Costs:			2,130,480
Office supplies	7,320		
General Liability and Bonding Insurance	624		
Payroll Processing	4,038		
Legal Expense	1,440		
Financial Software Support	646		
Audit Expense	7,300		
Technology Expense	1,680		
Phone/Internet/Postage	2,044		
Maintenance Agreements (Copier/Postage Meter)	1,494		
Office Space	13,534		
Professional Services Agreements	2,400		
(Technology and Financial Software Support)			
Books and Subscriptions Expense	500		
(Project Coordinator and other WIB Staff)			
Meetings Expenses	6,600		
Marketing	10,000		
(\$5,000 year one, and \$5,000 year two)			
Scholarships	200,000		
Subcontracts (SSI Solutions)	1,870,860		
Total Request			\$2,445,289

Regional Workforce Board engagement

The EGR-3 Regional Workforce Board (RWB) has been acclimated to its regional SSI process since December 2005, when Workforce Associates used the EGR-3 SSI Skills Shortage report in its presentation offering an overview of EGR-3's economy as part of their "Workforce 101" programming.

EGR-3 is proud to have a number of its RWB leadership on Indiana's State Human Resources Investment Council (SHRIC). EGR-3 workforce leadership thus was further engaged in SSI when Deputy Commissioner Andrew Penca presented SSI to the SHRIC on January 17, 2006.

The RWB also voted to authorize and endorse the EGR-3 SSI proposed solutions plan and methodology on February 3, 2006. They have been provided with an advance draft of this report and offered their support via email. SSI staff is scheduled to deliver an overview of SSI solutions to the RWB at their March 10 meeting.

Communication between the SSI team and the RWB has been facilitated by cross-pollination between Regional Workforce Board members and SSI/NIWIB leadership. RWB members John Wellington (SSI Lead Team), Eric Walts (SSI Lead Team), Rob Pearson (SSI Consortium) and Jac Price (NIWIB Chair, EGR-3 RWB Chair and SHRIC member) have been very helpful throughout this process.

Other SSI-driven solutions

An exciting outcome of the EGR-3 SSI planning process was the unleashing of innovation at the local and regional level. Of the 34 SSI letters of intent received, some of the concepts were not directly tied to both SSI shortages and root causes – or were not able to be placed within the SSI “allowable expenditures” grid – making the proposed solutions less likely to be funded according to the criteria of SSI. The challenges of ability to fund were especially strong with youth-related programming, where WIA requirements do not allow for open-enrollment, community-based activity.

Local innovation, however, must be recognized and encouraged. It was the intention of NIWIB to fully integrate the processes of SSI into its ongoing work; the innovation unleashed in the SSI solutions phase has allowed us to jump-start this integration with a number of exciting initiatives that have the potential to further our progress toward developing an empowered, innovative, demand-driven system.

As EGR-3 further hones its strategic outlook and determines future courses of action, the combination of other findings from the EGR-3 SSI Skills Shortage report and the package of proposed SSI solutions from this phase will be of great value.

Conclusion

We believe that the portfolio of solutions presented herein represents a combination of meaningful, achievable and pragmatic concepts that will address the many root causes in EGR-3 and, in the process, fix the shortages identified in Economic Growth Region 3's Strategic Skills Initiative planning.

The lessons learned in the SSI planning phase extend far beyond SSI itself. EGR-3 has learned important tools to developing a meaningful, demand-driven workforce system. In addition, many of the proposed solutions not presented in this report give us a starting point to other areas, be they further workforce research or continuing to align our training systems with employer needs.

We thank the Indiana Department of Workforce Development for the opportunity to engage in this exciting process and present these solutions for funding consideration.

Supplemental information

IPFW Technology Services – Business Technology Integrator education/career path

SCHEME FOR DEVELOPING A BUSINESS TECHNOLOGY INTEGRATOR: SECONDARY SCHOOLS THROUGH UNIVERSITIES

